THE NATIONAL CLEARINGHOUSE FOR MENTAL HEALTH INFORMATION

VOL. 11 NO. 4 - April 1974

PSYCHOPHARMACOLOGY ABSTRACTS

NATIONAL INSTITUTE OF MENTAL HEALTH

PSYCHOPHARMACOLOGY ABSTRACTS is a publication of the National Clearinghouse for Mental Health Information of the National Institute of Mental Health. It is a specialized information medium designed to assist the Institute in meeting its obligation to foster and support laboratory and clinical research into the nature and causes of mental disorders and methods of treatment and prevention. Specifically, this information service is designed to meet the needs of investigators in the field of psychopharmacology for rapid and comprehensive information about new developments and research results. For information or correspondence with the National Institute of Mental Health concerning *Psychopharmacology Abstracts*, changes of address, or removal of names from the mailing list see the inside back cover page.

Use of funds for printing this publication approved by the Director of the Office of Management and Budget, September 1, 1970.

Volume 11, Number 4 April 1974

CONTENTS

	Page
ABSTRACTS	719
Preclinical Psychopharmacology	
Chemical Synthesis, Isolation and Characterization	719
Drug Development (Preclinical Screening)	726
Mechanism of Action - Physiological, Biochemical and Pharmacological	727
Mechanism of Action - Behavioral	814
Toxicology and Side Effects	857
Methods Development	864
Clinical Psychopharmacology	
Early Clinical Drug Trials	869
Drug Trials in Schizophrenia	874
Drug Trials in Affective Disorders	888
Drug Trials in Neuroses	902
Drug Trials in Miscellaneous Diagnostic Groups	908
Psychotomimetic Evaluation Studies	930
Mechanism of Action - Physiological, Biochemical and Pharmacological	931
Mechanism of Action - Behavioral	952
Toxicology and Side Effects	967
Methods Development	984
Miscellaneous	987
AUTHOR INDEX	A-27
SUBJECT INDEX	S-325

Psychopharmacology Abstracts, is arranged in seventeen categories so that readers may focus more readily on their areas of interest. The Subject and Author Indexes refer the user to the categories under which the abstracts will be found. Thus, in the number 097961 11-14 , the first six digits refer to the abstract number, "11" refers to the issue of *Psychopharmacology Abstracts,* and "14" refers to the category

Carrie Lee Rothgeb, *Editor*
Bette L. Shannon, *Managing Editor*

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service

Alcohol, Drug Abuse, and Mental Health Administration
National Clearinghouse for Mental Health Information
5600 Fishers Lane
Rockville, Maryland 20852

Publication No. (ADM) 75-150
Printed 1974

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Subscription price per year in the United States, Canada, and Mexico: $16.90; other countries, $21.15. Single copy $3.70. The Clearinghouse does not sell copies of *Psychopharmacology Abstracts*. Persons wishing to subscribe by the year or to purchase single copies should send their orders, accompanied by check or money order, directly to the Superintendent of Documents.

ABSTRACTS

PRECLINICAL PSYCHOPHARMACOLOGY

01 CHEMICAL SYNTHESIS, ISOLATION AND CHARACTERIZATION

150410 Gurtoo, Hira L.; Phillips, Barrie M. Dept. of Experimental Therapeutics, Roswell Park Mem. Inst., Buffalo, NY 14203 Determination of total salicylates, phenacetin and/or total N-acetyl-p-aminophenol, and caffeine in biological samples and analgesic formulations. **Journal of Pharmaceutical Sciences. 62(3):383-387, 1973.**

An analytical method is reported for the biochemical and toxicological determination of phenacetin (apparent phenacetin), total salicylate (aspirin, salicylic acid, and its conjugates), total N-acetyl-p-aminophenol (N-acetyl-p-aminophenol and its conjugates), and caffeine in biological samples. Two 1-ml samples are required. The first sample, after being acid hydrolyzed to convert total salicylate to free salicylic acid and total N-acetyl-p-aminophenol to p-aminophenol, is extracted with chloroform to remove caffeine and salicylic acid. p-Aminophenol in the aqueous phase is estimated by its reaction with phenol and sodium hypobromite. Salicylic acid extracted from the chloroform with sodium bicarbonate solution is estimated by reacting it with either Folin-Ciocalteu reagent or ferric nitrate. The caffeine, remaining in the chloroform, is estimated from its absorbance at 276 nm. In the second sample, phenacetin is hydrolyzed to p-aminophenol (total p-aminophenol), which is estimated as before. Time dependent plasma and kidney levels of caffeine, phenacetin, total N-acetyl-p-aminophenol, and total salicylate, following the oral administration of a single dose (500 or 900mg/kg body weight) of aspirin - phenacetin - caffeine mixture to rats, were determined. The method also was adapted to the analysis of aspirin - phenacetin - caffeine powders. 12 references. (Author abstract)

150411 Keller, W. J.; McLaughlin, J. L.; Brady, L. R. Dept. of Medicinal Chemistry and Pharmacognosy, Purdue Univ., Lafayette, IN 47907 Cactus alkaloids XV: beta-phenethylamine derivatives from Coryphantha macromeris var. runyonii. **Journal of Pharmaceutical Sciences. 62(3):408-411, 1973.**

Chromatographic analysis of Dona Ana (Coryphantha macromeris), a cactus plant reputed to be a natural and legal psychedelic agent, is described. Eleven beta-phenethylamine derivatives were isolated and identified from fresh frozen specimens of the cactus. The data provide initial documentation for: the occurrence of N-formylnormacromerine in nature; the first recorded detection of metanephrine and N-methylmetanephrine in the plant kingdom; the first occurrence of synephrine and N-methyltyramine in this cactus; confirmation of earlier GLC-mass spectral data on the presence of N-methyl-4-methoxy-beta-phenethylamine, N-methyl-3,4-dimethoxy-beta-phenethylamine, tyramine, and hordenine in the plant; and verification of previous reports on the isolation of macromerine and normacromerine. 25 references. (Author abstract modified)

150412 Sato, P. T.; Neal, J. M.; Brady, L. R.; McLaughlin, J. L. Dept. of Medicinal Chem. and Pharmacognosy, Sch. of Pharmacy and Pharmacal Sciences, Purdue Univ., Lafayette, IN 47907 Cactus alkaloids XVI: isolation and identification of alkaloids in Coryphantha ramillosa. **Journal of Pharmaceutical Sciences. 62(3):411-414, 1973.**

A Texas species of the cactus plant Coryphantha, C. ramillosa Cutak, was investigated, screened and isolated to determine its possible physiological properties as a folkloric narcotic and psychedelic agent. Five alkaloids of this cactus genus were isolated chromatographically and crystallized as their hydrochloride salts. The isolated compounds were identified as N-methyl-4-methoxy-beta-phenethylamine hydrochloride, hordenine hydrochloride, N-methyltyramine hydrochloride, synephrine hydrochloride, and beta-O-methylsynephrine hydrochloride. All of these compounds have previously been identidied in other Coryphantha species. Although C. ramillosa Cutak has no recorded folkloric uses, it was studied in a search for unusual cactus alkaloids that might have psychotropic potential. 30 references. (Author abstract modified)

150416 Rondina, Ruben V. D.; Bandoni, Arnaldo L.; Coussio, Jorge D. Univ. de Buenos Aires, Dept. de Bioquimica, Junin 956, Buenos Aires, Argentina Quantitative determination of morphine in poppy capsules by differential spectrophotometry. **Journal of Pharmaceutical Sciences. 62(3):502-504, 1973.**

A procedure is described for a rapid quantitative analysis of morphine in poppy capsules of the variety found in Argentina, Papaver somniferum var. nigrum. The determination is based on differential spectrophotometry between alkaline and acidic solutions, a procedure which has not been used up to now for morphine in poppy capsules. The results were statistically compared with those obtained using a thin layer chromatography method. Both methods showed no significant differences. It is concluded that the present method allows a relatively rapid determination and is accurate enough to be used in the selection of the alkaloid capsules. 34 references. (Author abstract modified)

150417 Lai, Chii Ming; Mason, William D. Dept. of Pharmacy, Univ. of Georgia, Athens, GA 30601 New compounds: synthesis of alkyl esters of D,L-Dopa. **Journal of Pharmaceutical Sciences. 62(3):510-511, 1973.**

Thionyl chloride was used as a catalyst in the preparation of a prodrug of levodopa which can be transformed to the active drug following absorption into the blood. The preparation of seven esters of the less expensive D,L-dopa is reported. Results showed that the hydrochloride salts were quite stable to hydrolysis in acidic aqueous solutions. Using the paper chromatographic method of qualitative analysis, no hydrolysis was detected for up to 12 hours. 16 references. (Author abstract modified)

150418 Chafetz, Lester; Chen, Tsun-Ming; Greenough, R. Clive. Pharm. Res. and Dev. Labs., Warner-Lambert Res. Inst., Morris Plains, NJ 07950 Ureide ring scission of phenobarbital by sodium borohydride. **Journal of Pharmaceutical Sciences. 62(3):512, 1973.**

In a letter to the editor, the reaction of phenobarbital with sodium borohydride in aqueous media is reported; an unexpected finding in view of a previous report that phenobarbital was not reduced by this compound in absolute alcohol, tetrahydrofuran, or diglyme. Solutions of phenobarbital in aqueous alkali, methanol or methanol and ether mixtures were treated with excess sodium borohydride added as the solid and the mixtures were monitored by thin layer chromatography. Elemental analysis showed no nitrogen, and the carbon - hydrogen values confirmed the structure of 2-phenyl-1-butanol. Phenobarbital was demonstrated to be stable when added to reaction mixtures in which the borohydride had been allowed to decompose to borate. 1 reference.

150419 Segelman, Alvin B.; Babcock, Philip A.; Braun, Barbara L. Dept. of Pharmacognosy, Rutgers, New Brunswick, NJ 08903 Cannabis sativa L. (marijuana) II: standardized and reliable microscopic method for detection and identification of marijuana. **Journal of Pharmaceutical Sciences. 62(3):515-516, 1973.**

An easily performed procedure for the microscopic identification of marihuana is described, based on observing certain morphological structures such as hairs characteristic of Cannabis sativa plants. The method consists of mixing a small amount of the suspect material with two drops of clearing solution on a microscope slide; heating the slide, allowing it to cool and reheating to boiling; treating the wet material with freshly prepared chromogenic reagent and clearing solution, and examining the mount using 100 to 400 times magnification. It has been shown that fast blue B salt reagent couples with cannabinoid substances to yield red to purple colored compounds. The reddish purple color is easily observed with the naked eye. Finally, one drop of acetic acid is placed along one edge of the coverslip and drawn by touching the opposite edge with filter paper. The presence of cystolith hairs is evidenced by the liberation of carbon dioxide gas bubbles from the hair bases. 5 references.

150650 Sanchez, Emilio; Tampier, Lutske; Nunez, Luis; Mardones, Jorge. Depto. de Farmacologia, Area Norte, Facultad de Medicina, Universidad de Chile, Santiago, Chile /Chilean marihuana: chemical composition and pharmacological aspects./ Marihuana chilena: analisis quimico y aspectos farmacologicos. **Revista Medica de Chile (Santiago). 100(3):236-243, 1972.**

In samples of marihuana from the district of Los Andes, Chile, the presence of all of the cannabinols usually described in hemp from other countries was shown by chromatography. Their concentration was also very similar. As to the effect of aging, the concentration of delta-1-tetrahydrocannabinol(delta-1 THC) diminishes progressively by transformation into cannabinol (CBN), a psychomimetically inactive compound. Total marihuana extracts injected intravenously in rats produced significant decrease in heart rate, blood pressure, and respiratory rate; they also induced a marked relaxation of the isolated rabbit ileum. The cardiovascular and respiratory actions

of marihuana extract were due to delta-1-THC. Cardiac depression was mediated, at least in part, by central vagal stimulations: atropine or vagotomy prevented the bradycardia induced by delta-1-THC injection, as did sectioning of the brainstem at the level of the formation reticularis and the dorsal vagal nucleus. Cannabidiolic acid (CBDA) proved to be the compound responsible for the relaxant effect of marihuana extract on rabbit ileum. This effect was not blocked by acetylcholine, histamine, barium chloride, or adrenergic blocking agents. The biological and medical implications of these actions of marihuana are discussed. 22 references. (Author abstract)

151632 Messiha, F. S.; Raval, Rajendra P. Dept. of Pharmacology and Therapeutics, Texas Tech Univ. School of Medicine, Lubbock, TX 79409 Fluorometric determination of 3-methoxytyramine and 3-methoxy-4-hydroxyphenylethanol. **Journal of Pharmacy and Pharmacology (London). 25(2):184-185, 1973.**

The optimal experimental conditions for the quantitative fluorometric estimation of authentic 3-methoxy-4-hydroxyphenylethanol (MOPET) and 3-methoxytyramine (3-MT) were determined. Phosphate buffer is added to the sample containing 3-MT or MOPET to adjust the pH, after which freshly prepared phosphate buffer is added to the mixture. The oxidation is effected by the addition of sodium periodate solution. The reaction mixture is shaken and allowed to stand for a few minutes, after which a solution of anhydrous sodium sulfite in sodium hydroxide is added to it. The fluorophor formed is read after 15 minutes in a spectrofluorometer; the fluorophor formed is stable at room temperature for at least 2 hours. Due to similarities in the reactions employed for the estimation of 3-MT and MOPET it is necessary to separate the two before their quantitative determination; this can be accomplished by chromatography of a solution of the compounds on a cation exchange resin. This procedure has been used in the determination of urinary 3-MT and should be applicable to tissue extracts. 14 references.

155553 Koyama, Hiroyoshi; Yamada, Masayuki; Matsuzawa, Tai. Takeda Chemical Industries, Osaka, Japan Physico-chemical studies on a new potent CNS depressant, 8-chloro-6-phenyl-4H-s-triazolo(4,3-a)(1,4)-benzodiazepine (D-40TA). **Journal of the Takeda Research Laboratories (Osaka). 32(1):77-90, 1973.**

The physicochemical properties of a new tranquilizer with sedative, hypnotic, muscle relaxing and anticonvulsive properties, 8-chloro-6-phenyl-4H-s-triazolo(4,3-a)(1-4)benzodiazepine (D-40TA) are described. The melting point, solubilities, partition coefficients and pka' were determined. Stabilities were studied and qualitative and quantitative analysis was conducted by means of thin layer and gas liquid chromatographies. D-40TA is stable to heat, moisture and sunlight in the solid state and stable in aqueous solutions except in strong acidic or alkaline media. 24 references. (Author abstract modified)

156761 Beckett, A. H.; Al-Sarraj, S. Dept. of Pharmacy, Chelsea College, Univ. of London, Manresa Rd., London, S.W.3 6LX, England The identification, properties and analysis of N-hydroxyamphetamine -- a metabolite of amphetamine. **Journal of Pharmacy and Pharmacology (London). 25(4):328-334, 1973.**

Five analytical methods based on different techniques were devised to enable the quantitative estimation of N-hydroxyamphetamine (Ib), a metabolite of amphetamine (Ia). Ib can be extracted from aqueous solutions at neutral pH, but it is readily decomposed into syn-phenylacetone and anti-phenylacetone oximes (II) at alkaline pH values. Gas chromatography of Ib is possible, provided the compound does not come into contact with heated metal surfaces. In aqueous media, the hydroxylamine can be determined: by extraction from the medium with ether and analysis of the ethereal solution by gas liquid chromatography (GLC); by separation of the compound on a thin layer followed by oxidation of the hydroxylamine spot with ammoniacal silver nitrate to give phenylacetone oximes which may then be determined by GLC; by reduction with lithium aluminium hydride to Ia followed by GLC; by conversion to phenylacetone oximes by shaking at pH 12 in air, extraction of the oximes, and GLC; or directly in aqueous solution by polarography provided the measurement is made immediately after the supporting electrolyte, sulphite/NaOH, has been added. 7 references. (Author abstract modified)

156762 Beckett, A. H.; Al-Sarraj, S. Dept. of Pharmacy, Chelsea College, Univ. of London, Manresa Rd., London, S.W.3 6LX, U.K. Metabolism of amitriptyline, nortriptyline, imipramine and desipramine to yield hydroxylamines. **Journal of Pharmacy and Pharmacology (London). 25(4):335-336, 1973.**

The metabolism of drugs containing tertiary and secondary amines possessing a -CH2- group adjacent to the basic center to yield hydroxylamines was researched using amitriptyline (Ia), nortriptyline (Ib), imipramine (IIa), and desipramine (IIb). The incubation of Ia or Ib with liver fractions from rabbits and guinea pigs gave the hydroxylamine Ic, while IIa and IIb gave the hydroxylamine IIc; mitochondria gave the same reaction with Ib and IIb but not with Ia and IIa. The metabolism of Ia and Ib also yielded a small amount of the hydroxylamine of the primary amine desmethylnortriptyline, and the metabolism of IIa and IIb also gave minor amounts of the hydroxylamine of the primary amine desdimethylimipramine. 5 references.

156812 Domino, E. F.; Mohrman, Margaret E.; Wilson, Ann E.; Haarstad, V. B. Michigan Neuropsychopharmacology Research Program, Dept. of Pharmacology, Univ. of Mich., Ann Arbor, MI Acetylseco hemicholinium-3, a new choline acetyltransferase inhibitor useful in neuropharmacological studies. **Neuropharmacology (Oxford). 12(6):549-561, 1973.**

The synthesis and some aspects of the pharmacology of acetylseco hemicholinium-3 (acetylseco HC-3), the acetylated open ring analogue of hemicholinium-3 (HC-3), are described. The effects of both compounds on rat brain acetylcholine (ACh), 14C-choline (14C-Ch) incorporation into 14C-ACh were determined in vivo, along with their effects on one way jump box avoidance and escape behavior in naive and trained rats. In addition, the in vitro effects of both drugs on choline acetyltransferase activity (ChAc) in the rat brain were determined. When given intraventricularly in doses of 1 to 20microg, both compounds reduced total ACh content in the brain to a maximum of 50% of normal in 30 to 60 minutes. In doses of 20microg intraventricularly, both drugs also reduced the incorporation of 14C-Ch into 14C-ACh by 84.5% for acetylseco HC-3 and by 52% for HC-3. The in vivo changes of ACh in the brain were correlated with the behavioral deficits induced in one-way shuttlebox acquisition and retention. In doses of 20microg total intraventricularly, both compounds produced behavioral deficits which were greater in naive than in trained animals. In vitro, acetylseco HC-3 inhibited ChAc activity with an I50 of 0.00001M with CH 0.01M and acetyl CoA 0.00064M, while HC-3 had no inhibitory effects. Using rat brain homogenate as the enzyme source and commercial acetyl CoA for kinetic studies, acetylseco HC-3 was shown to be a mixed inhibitor of acetyl CoA and a competitive inhibitor of Ch. The in vivo actions of acetylseco HC-3 are consistent with those of a ChAc inhibitor. However, it is necessary to rule out the possibility that the drug may also compete with Ch for its transport across biological membranes like its deacetylated derivative HC-3. 44 references. (Author abstract)

156868 no author. no address Biosynthesis of reserpine from carbon-14 dioxide. Final report, NIMH Grant MH-13826, 13 p.

Radioactive carbon dioxide was incorporated into reserpine by chemical degradation of the reserpine molecule from seedlings of R. canescens, and suitable methods for degrading small amounts of reserpine into usable fragment molecules were devised. The methodology for determining isotopic incorporation was changed from chemical to mass spectrometric methods, and the mass spectra of reserpine and reserpic acid were interpreted. The lanthanide induced shifts of reserpine were studied using a new shift reagent, Eu(fod)3.

156872 Ali, Akhtar; Faesel, Jurgen H. R.; Sarantakis, Dimitrios; Stevenson, David; Weinstein, Boris. Dept. of Chemistry, University of Washington, Seattle, WA 98105 Synthesis of scotophobin. A memory code word. Seattle, WA, Univ. of Washington, 1973. 4 p.

A synthetic route to scotophobin, a peptide considered to possess memory properties, is described. The substance which appears to be responsible for the transfer of learned dark aversion behavior in the brain of rats was isolated and characterized. Quantitative analysis indicated 15 amino acid residues were present in the peptide. A synthesis of the final sequence of this pentadecapeptide, which has been given the name scotophobin, was designed along the following lines: the presence of glycyl residues at positions 7, 13, and 14 permits one to join smaller fragments at these sites without fear of racemization, while the replication of the tripeptide glutamyl-glutaminyl-glycine at sites 5 - 7 and 11 - 13 allows an economy in the construction of these two units. Specific steps in the synthesis are briefly described. Biological data on the final product was not available at the time of writing. 5 references.

156874 Riley, Thomas N. Dept. of Medicinal Chem., School of Pharmacy, Univ. of Mississippi, University, MS 38677 Specific irreversible inhibitors of monoamine oxidase. Progress report, NIMH Grant MH-18705, 1972. 3 p.

The primary objective of this research was the design, synthesis and evaluation of active site directed irreversible inhibitors of the enzyme monoamine oxidase. The cyclopropylamine moiety was chosen as the biofunctional group for this study and the 2-chloroethylamine function was selected for its alkylating ability in vivo. The cyclopropylamines used in this study as starting materials included 2-phenylcyclopropylamine, 2-phenoxycyclopropylamine, and cyclopropylamine. None of the desired compounds have as yet been obtained because of difficulties encountered in their preparation. The stereochemical requirements for active site directed irreversible inhibition of monoamine oxidase was also studied. As part of this investigation, a determination of the absolute configuration of the enantiomers of trans-2-phenylcyclopropylamine was undertaken and successfully completed. The results of this study indicated that the more active monoamine oxidase inhibitory enantiomer of trans-4 possesses the 1S:2R configuration. 1 reference.

156875 McLaughlin, Jerry L. Dept. of Medicinal Chem. and Pharmacognosy, School of Pharmacy and Pharmacal Sciences, Purdue University, Lafayette, IN 47907 Search for new hallucinogenic cacti. Final report, NIMH Grant MH-21448, 1973. 17 p.

The objectives of this research were to find and to characterize alkaloids in 34 species of selected, potentially hallucinogenic, cacti. Of the original 34 selected species, 25 were obtainable and were screened chromatographically for alkaloids; 23 of these 25 species were found to contain alkaloids, and alkaloids were crystallized and characterized from 10 of these species. During the course of the study, additonal species were included, so that by the completion date, alkaloids were detected in 51 cacti, identified in 28, and crystallized from 13. Ten new alkaloids were discovered and/or isolated for the first time from plants. Several previously known alkaloids had their known occurrence extended to the cactus family and/or to specific cactus species. Nearly all of the alkaloids isolated were beta-phenethylamines similar in structure to the hallucinogen, mescaline, and to the stimulant hormone, epinephrine. Isolation of these alkaloids confers explainable physiological activities upon ingestion of many of these cacti for folkloric medicinal uses. The discovery of traces of mescaline in the Mexican peyotillo cactus, Pelecyphora aselliformis, and the identification of novel mescaline analogues in several cactus species is of significance in understanding and combating the uses of these plants as items of drug abuse.

156876 Blanton, C. DeWitt, Jr. School of Pharmacy, University of Georgia, Athens, GA 30602 Synthesis of indole isosteres. Final report, NIMH Grant MH-16422, 1973. 11 p.

The synthesis and systematic investigation of the chemical and pharmacological properties of the indole isosteres, pyrrolopyrroles, furopyrroles, and thienopyrroles, was attempted. The overall goals of the total project were: 1) the synthesis of some rarely encountered heterocyclic indole isosteres; 2) a study of the chemistry associated with these new heteroaromatic systems; 3) substitution of indole isosteres for the indole nucleus in biologically active agents, such as 5-hydroxytryptamine, harmaline, reserpine, gramine, melatonin, and lysergic acid diethylamide; and 4) evaluation of the pharmacological properties of these isosteric indole derivatives. Emphasis was placed on items 1 and 2, and the various pathways attempted to synthesize the desired indole isosteres are presented schematically. Initial attempts to incorporate these new indole isosteres into biologically active agents in place of the indole moiety met with difficulty. Protective groups were developed for the pyrrolopyrroles, resulting in agents with better solubility and greater resistance to oxidation. It should now be possible to accomplish reduction of these agents to gramine analogs or to react the carboxylic acid moiety selectively to give serotonin analogs and so on. These substitution reactions in biologically active indole containing systems will be a primary goal of further work.

156878 Heindel, Ned D. Dept. of Chemistry and Center for Health Sciences, Lehigh University, Bethlehem, PA 18015 Seven-membered heterocyclics of medicinal potential. Final report, NIMH Grant MH-13562, 1973. 23 p.

More than 100 totally novel chemical agents were synthesized representing 18 unique chemical families obtained by entirely new synthetic routes; 53 compounds were evaluated in an Irwin neuropharmacological mouse profile and five in a DOCA antihypertensive rat screen. Two com-

pounds were tested in a carrageenin pedal against a battery of six bacterial and fungal strains. Compounds synthesized and evaluated during this program include: four o-mercaptobenzamides, nine o-hydroxybenzamides, and a series of o-aminobenzenesulfonamides. The synthesis pathways are shown schematically. 28 references.

157302 Garg, B. D.; Krell, R. D.; Sokoloski, T.; Patil, P. N. College of Veterinary Medicine, Haryana Agricultural University, Hissar, India Steric aspects of adrenergic drugs XXII: retention of (+)- and (-)-14C-norepinephrine by mouse heart. **Journal of Pharmaceutical Sciences. 62(7):1126-1129, 1973.**

Steric aspects of adrenergic drugs elucidated by uptake and retention of (+)-14C-norepinephrine and (-)-14C-norepinephrine in the hearts of mice pretreated with iproniazid, 6-hydroxydopamine, alpha-methyl-p-tyrosine, guanethidine, and reserpine were investigated. The manipulation of the accumulation by pharmacological tools suggests that the retention of the isomers by the vesicles is truly stereoselective in favor of the (-)-isomer. The results favor the view that the stereochemically correct orientation of the beta-hydroxyl group is important for the adenosinetriphosphate magnesium dependent process in the adrenergic nerve granules. An unexpected finding is that uptake and retention of isomers were not influenced by a relatively large dose of guanethidine. 29 references.

159484 Kebabian, John Willis. Yale University, New Haven, CT Dopamine-sensitive adenylate cyclase: the 'dopamine-receptor' in the mammalian nervous system. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-19028 HC$10.00 MF$4.00 111 p.**

Properties of the dopamine stimulated adenylate cyclase were investigated with a variety of alpha and beta adrenergic antagonists. A beta adrenergic receptor, separate and distinct from the dopamine receptor, was also demonstrated. Results indicate that dopamine sensitive adenylate cyclase may be the receptor for dopamine in the mammalian brain. It is suggested that the isolation of this enzyme from the caudate nucleus facilitate the search for new therapeutic agents useful in the treatment of extrapyramidal diseases. (Journal abstract modified)

160230 Johnson, G. A.; Kim, E. G. The Upjohn Company, Kalamazoo, MI 49001 Increase of brain levels of tryptophan induced by inhibition of dopamine beta-hydroxylase (EC 1.14.2.1). **Journal of Neurochemistry. 20(6):1761-1764, 1973.**

An increase of brain levels of tryptophan induced by inhibition of dopamine beta-hydroxylase (E.C. 1.14.2.1) was investigated. Results indicated that each of the dopamine beta-hydroxylase inhibitors not only increased norepinephrine consistent with in vivo enzyme inhibition but each also elevated significantly whole brain levels of tryptophan. Only disulfiram and FLA 63 (bis(4-methyl-1-homopiperazinylthiocarbonyl)disulfide) failed to increase 5-hydroxyindolacetic acid. The accelerated rate of 5-hydroxtryptamine (5-HT) biosynthesis which accompanied the specific depletion of brain norepinephrine (NE) resulting from in vivo inhibition of dopamine beta-hydroxylase suggested that in some parts of the brain, NE may play a regulatory role in the synthesis of 5-HT through a feedback mechanism directed at the rate limiting tryptophan hydroxylase. 20 references. (Author abstract modified)

160463 Sternbach, Leo H. Chemical Research Division, Hoffmann-La Roche Inc., Nutley, NJ 07110 Chemistry of 1,4-benzodiazepines and some aspects of the structure-activity relationship. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 1-26).**

The chemistry of 1,4-benzodiazepines (1,4-BD) and some aspects of the structure - activity relationship are examined. A short history of the work which led to the first synthesis of the pharmacologically active 1,4-BD is followed by consideration of the synthesis of benzodiazepines by ring enlargement, transformations of chlordiazepoxide and methods for the synthesis of 5-phenyl-1,4-benzodiazepinones. More than 2000 1,4-BD have been prepared and special note is made of the substitution in position 7, in position 1 and in ring C of the compound. Other substitutions of hydrogen, chlorine or methyl groups were studied. Thirty of the compounds have had preliminary clinical trials. 28 references.

161140 Powell, W. S.; Heacock, R. A. Department of Chemistry, Karolinska Institutet, S 10401 Stockholm 60, Sweden The oxidation of 6-hydroxydopamine. **Journal of Pharmacy and Pharmacology (London). 25(3):193-200, 1973.**

The oxidation of 6-hydroxydopamine with molecular oxygen or potassium ferricyanide in aqueous solution was shown to lead mainly to the formation of the uncyclized quinone 2-(beta-aminoethyl)-5-hydroxy-p-benzoquinone. However this quinone cyclized slowly, presumably to norepinochrome (i.e. indoline-5,6-quinone, XII), since 5,6-dihydroxyindole, known to be readily formed by rearrangement of norepinochrome, can be isolated from these solutions. 5,6-Dihydroxyindolines can also be isolated (as their acetyl derivatives) from the products obtained by the addition of reducing agents to solutions containing 6-hydroxydopamine oxidation products. No evidence was found to suggest that the possible alternative cyclization of the quinone VII to the p-quinonoid aminochrome 6-hydroxyindoline-4,7-quinone (III) occurred to any significant extent. 26 references. (Author abstract)

161146 Shulgin, A. T. 1483 Shulgin Road, Lafayette, CA 94549 Stereospecific requirements for hallucinogensis. **Journal of Pharmacy and Pharmacology (London). 25(3):271-272, 1973.**

In a letter to the editor, the resolution and evaluation in man of the highly active hallucinogenic compound 2,5-dimethoxy-4, alpha-dimethylphenethylamine, DOM or STP (II) is reported. Employing circular dichroism, the absolute configurations of the optical enantiomers have been determined as being (+)-S and (-)-R in comparison to the corresponding unsubstituted amphetamines. In man the racemic compound is effective at a threshold level of about 1mg total dose. The levorotatory R form of II is the hallucinogenic isomer. An acute dose of 8 micrograms kilograms-1 (-)-R-DOM was equivalent to twice its weight of racemate both in the nature and duration of the subjective effects experienced. The (+)-S-isomer was without central effects at many times this dose. Even at 30 micrograms kilograms-1 no signs of sympathomimetic stimulation were noted (mydriasis, hypertension, tachycardia) and at no level could the central hallucinogenic syndrome of either the racemate or the levorotatory isomer be evoked. It is of interest that the R isomer of DOM and the isomer of LSD with the R configuration at C5 are the effective hallucinogens. Taken with the inactivity of the S-counterparts, the observations provide circumstantial evidence of a selective and assymetric site associated with the mechanisms of the action of these drugs. 7 references. (Author abstract modified)

164855 Riley, Thomas N.; Brier, C. G. School of Pharmacy, University of Mississippi, University, MS 38677 Specific irreversible inhibitors of monoamine oxidase. Progress Report, NIMH Grant, MH-18705, 1973. 5 p.

Preliminary studies in design, synthesis and evaluation of active site directed irreversible inhibitors of the enzyme monoamine oxidase (MAO) are reported. Results from synthetic aspects are incomplete. In a study of stereochemical requirements for active site directed irreversible inhibition of MAO, a determination of the absolute configuration of the enantiomers of trans-2-phenylcyclopropylamine was undertaken. Results indicated that the more active MAO inhibitory enantiomer of trans-4 possesses the 1S:2R configuration. 1 reference.

165997 Braun, U.; Kalbhen, D. A. Institute of Pharmacology, University of Bonn, Bonn, Germany Evidence for the biogenic formation of amphetamine derivatives from components of nutmeg. **Pharmacology. 9(5):312-316, 1973.**

The metabolism of myristicin by rat liver, using the isolated perfused liver or incubation of liver homogenate, was investigated. Myristicin and elemicin are phenylallyl derivatives present in nutmeg. The similarity of their chemical structure to that of mescaline or certain amphetamine derivatives has led to the assumption that the psychotropic effect of nutmeg in man is due to amphetamine derivatives endogenously produced from these phenylallyl precursors by biotransformation. Results showed for the first time that rat liver is capable of converting myristicin into 3-methoxy-4,5-methylenedioxyamphetamine (MMDA). Identification of MMDA was achieved by two dimensional thin layer chromatography of the dansylated amine and further by mass spectroscopy. 17 references. (Author abstract modified)

167017 Hodkova, J.; Vesely, Z.; Koblicova, Z.; Holubek, J.; Trojanek, J. Research Institute for Pharmacy and Biochemistry, Prague 9, Czechoslovokia On alkaloids. XXV. Minor alkaloids of poppy capsules. **Journal of Natural Products. 35(1):61-68, 1972.**

Mother liquors from the commercial isolation of morphine from poppy capsules were subjected to column chromatography on silica gel and thin layer chromatography on alumina to afford codeine, narcotine, thebaine, papaverine, and

cryptopine in addition to the unreported bases papaveraldine, gnoscopine, beta-allocryptopine, and the base A. On the basis of chemical degradations, spectral analysis, and comparison with a synthetic specimen, the base A was identified as narceine imide. 25 references. (Author abstract)

167041 Shulgin, A. T.; Sargent, T.; Naranjo, C. 1483 Shulgin Road, Lafayette, CA 94549 Animal pharmacology and human psychopharmacology of 3-methoxy-4,5-methylenedioxyphenyliso propylamine (MMDA). **Pharmacology (Switzerland). 10(1):12-18, 1973.**

Experiments presenting a rationale for the investigation of the synthesis and pharmacology of 3-methoxy-4,5-methylenedioxyphenylisopropylamine (MMDA) as a potential psychodysleptic compound are reported. The chemical synthesis and physical properties of this compound are described. The pharmacologic effects of MMDA in several animal species are presented, as are its clinical effects in man. The animal pharmacology was generally unremarkable, except for a hypotensive effect in the dog, and the therapeutic index was 85. The subjective effects of MMDA in man include an enchancement of feeling and of eyes closed visual imagery, but no hallucinogenesis or other disturbance of the sensorium. Reality testing and environmental contact are not affected except for a tendency to withdraw into a state of drowsiness, or into a world of fantasy and visual imagery. The induced state of increased availability of emotion was easily manipulated in the psychotherapeutic setting used, and appeared to lead to an enhanced insight into subconscious content. 19 references. (Author abstract modified)

167042 Kelley, J. M.; Adamson, R. H. Laboratory of Chemical Pharmacology, National Cancer Institute, National Institutes of Health, Bethesda, MD 20014 A comparison of common interatomic distances in serotonin and some hallucinogenic drugs. **Pharmacology (Switerland). 10(1):28-31, 1973.**

Common interatomic distances in serotonin and some hallucinogenic drugs were compared. There was found a common triangular arrangement of atoms composed of two nitrogen atoms and one oxygen atom of definite interatomic distances in the indole containing hallucinogenic drugs. A similar intermolecular arrangement has been observed in the neurohumoral agent serotonin. This structural feature may be important in the binding of these drugs to the receptor site(s) involved in hallucinogenesis. 5 references. (Author abstract modified)

02 DRUG DEVELOPMENT (PRECLINICAL SCREENING)

150415 Heindel, Ned. D.; Chun, Maria C. Dept. of Chemistry, Cedar Crest Coll., Allentown, PA Synthesis and CNS depressant activity of imidazolinone glyoxylates. **Journal of Pharmaceutical Sciences. 62(3):496-498, 1973.**

Evaluation of a new imidazole class in a primary Irwin neuropharmacological mouse profile is described. Six new imidazolinone glyoxylates, which exist in tautomeric equilibria with hydroxyimidazole glyoxylates, were synthesized by a new type of Claisen rearrangement and assessed. Central nervous system depression was observed in several members of the class, confirming recent reports of the effectiveness of imidazoles as therapeutic agents. 12 references. (Author abstract modified)

156811 Wallach, M. B.; Rotrosen, J.; Gershon, S. Dept. of Pharmacology, Institute of Clinical Medicine, Syntex Research, Stanford Ind. Park, Palo Alto, CA 94304 A neuropsychopharmacological study of phenmetrazine in several animal species. **Neuropharmacology (Oxford). 12(6):541-548, 1973.**

Based on previous studies which have indicated that phenmetrazine does not produce stereotyped behavior in rodents, the ability of this drug to elicit gross behavioral and electrographic alterations was examined in rats, cats, and dogs. Phenmetrazine was found to elicit stereotyped behavior in all three species. In cats it produced a desynchronized electroencephalogram and elevated reticular formation multiple unit activity. The stereotypy inducing action of phenmetrazine in cats can be antagonized by alpha-methyl-p-tyrosine and reserpine. Phenmetrazine appears to have pharmacological properties similar to those of cocaine and (+)-amphetamine. The ability of phenmetrazine to elicit stereotypy does not contradict previous findings as the doses required to induce this behavior in rats were approximately twice the maximum dose used in these earlier studies. In effect all the data suggest that phenmetrazine belongs to the CNS stimulant category of agents which are able to elicit paranoid psychoses in man. 28 references. (Author abstract modified)

162055 Adams, H. R.; Sofia, R. D. Department of Pharmacology, University of Texas Southwestern Medical School, Dallas, TX 75235 Interaction of chloramphenicol and delta1-tetrahydrocannabinol in barbital-anesthetized mice. **Experientia (Basel). 29(2):181-182, 1973.**

The interaction of chloramphenicol (CHPC) and delta1-tetrahydrocannabinol (delta1-THC) in barbital anesthetized mice was studied. The findings indicate that CHPC enhances the ability of delta1-THC to prolong barbital sleeping time, yet the antibiotic has no effect itself on barbital activity. The experiment offers additional evidence of the apparently nonspecific inhibitory influence of CHPC on the drug metabolizing functions of hepatic microsomal enzymes. By inference, it is concluded that the CNS depressant effect of delta1-THC, at least with respect to its interaction with barbital anesthesia, is due to the parent molecule rather than a biotransformation product. 11 references.

162673 Peters, Ronald, H.; Reich, Michael J. Department of Psychology, Iowa State University, Ames, IA 50010 Effects of ventromedial hypothalamic lesions on conditioned sucrose aversions in rats. **Journal of Comparative & Physiological Psychology. 84(3):502-506, 1973.**

A passive-avoidance experiment testing the effects of ventromedial hypothalamic lesions on conditioned sucrose aversions in rats was conducted. Rats with lesions of the ventromedial hypothalamus (VMH) maintained at 95% body weight received an intraperitoneal injection of a 2% body weight dose of .15 M lithium chloride following the consumption of sucrose pellets. Control groups maintained at 95% and 80% bodyweight received the same treatment. The VMH and 80% groups showed less aversion to sucrose than the 95% group. These results suggest the appetitive passive-avoidance deficits in VMH-lesioned rats may be produced by hunger motivation. 13 references. (Author abstract)

164240 Christensen, H. D.; Barnett, L.; Carroll, F. I. Chemistry and Life Sciences Division, Research Triangle Institute, Research Triangle Park, NC 27709 Biological activity of pentobarbital metabolites. **Journal of Pharmaceutical Sciences. 62(10):1722-1723, 1973.**

The activity of R(+)-pentobartibal and S(-)-pentobarbital and the six 3-hydroxypentobarbital derivatives of RS-pentobarbital were compared by administering 40mg/kb i.v. to mice. The potency difference between the R(+)-pentobarbital and S(-)-pentobarbital is shown by the relative number of mice exhibiting sleeping by loss of the righting reflex. There is a slightly faster onset of action with the S(-) form than with racemic pentobarbital. All R(+) treated mice were very sedated; two of these mice just failed to meet the sleeping criterion of complete loss of the righting reflex for at least one minute. None of the mice administered a 3-hydroxypentobarbital metabolite was close to the sleeping criterion. The 3-hydroxy metabolites are not pharmacologically inert, but their activity is much less than that of the parent compound. The differences found in the potency of R(+)-pentobarbital and S(-)-pentobarbital may be due to differences in the rate of metabolism, binding properties, or relative penetration capacity to the receptor sites as well as other factors. 11 references. (Author abstract modified)

03 MECHANISM OF ACTION: PHYSIOLOGICAL, BIOCHEMICAL AND PHARMACOLOGICAL

149650 Gal, E. M.; Roggeveen, A. E. Neurochemical Research Laboratory, Department of Psychiatry, College of Medicine, Univ. of Iowa, Iowa City, IA 52240 Cerebral hydroxylases: stimulation by a new factor. **Science. 179(4075):809-811, 1973.**

Cerebral tryptophan 5-hydroxylase and tyrosine hydroxylase are stimulated by a solution of lyophilized, protein free 30000g supernatant of rat brain homogenates (concentrate 1). This preparation can be further purified by passage through Sephadex G-75 and phosphocellulose columns to yield concentrate 2. Unlike concentrate 1, concentrate 2 is unstable after several days of storage even at -27 C. Neither preparation is active without the presence of a reduced pteridine cofactor. The stimulating factor appears to be thermostable, alkali-labile, dialyzable, and light-sensitive. 13 references. (Author abstract)

149651 Goldstein, M.; Battista, A. F.; Ohmoto, T.; Anagnoste, B.; Fuxe, K. Neurochemistry Laboratory, Dept. of Psychiatry, New York University Medical Center, New York, NY 10016 Tremor and involuntary movements in monkeys: effect of L-dopa and of a dopamine receptor stimulating agent. **Science. 179(4075):816-817, 1973.**

A model for studies of involuntary movements in animals is presented which could provide some

insights on the mechanisms involved in the production of dyskinesias. The effects of L-dopa in combination with l-alpha-methyldopa hydrazine, and of l-(2'-pyrimidyl)-4-piperonyl-piperonylpiperazine (Trivastal), an agent that stimulates dopamine receptors on green monkeys with ventromedial tegmental lesions, are reported. Either of these agents relieves such surgically induced tremor and evokes involuntary movements. These results indicate that tremor and involuntary movements are associated with a common mechanism and that the activity of the dopamine receptors is involved in the regulation of these dysfunctions. 5 references. (Author abstract modified)

150315 Johnson, Eugene M., Jr.; Zenker, Nicolas; Wright, Jeremy. Dept. of Pharmacology, Washington Univ. Medical School, St. Louis, MO Biogenic amine-depleting effects of benzimidazole-5(6)-DL-alanine. **Biochemical Pharmacology (Oxford). 21(13):1777-1783, 1972.**

Studies in vivo on benzimidazole-5(6)-DL-alanine were carried out by administering the compound in aqueous solutions intraperitoneally to male Wistar rats. Benzimidazole alanine (278mg/kg) decreased heart norepinephrine (80%), brain norepinephrine (58%) and brain dopamine (70%) within 3 hr and brain serotonin (70%) within 1 hr of administration. Benzimidazole ethylamine (100 mg/kg) produced a 60% decrease in heart norepinephrine within 3 hr of administration and benzimidazole alanine was not able to reduce heart norepinephrine in animals pretreated with the decarboxylase inhibitor, DL-seryl-2,3,4-trihydroxybenzylhydrazine hydrochloride (Ro-4-4602) before benzimidazole alanine administration. Benzimidazole alanine, administered prior to tranylcypromine completely blocked the increase in brain norepinephrine and dopamine after monoamine oxidase inhibition and reduced the increase in brain serotonin by 65%. 16 references. (Author abstract)

150316 O'Brien, R. A.; Boullin, D. J. F. Hoffman-LaRoche & Co. Ltd., Research Dept., Basel, Switzerland Accumulation, storage and release of adrenergic neuron blocking agents and related drugs by human platelets. **Biochemical Pharmacology (Oxford). 21(13):1817-1827, 1972.**

Human platelets suspended in plasma or Krebs solution were incubated with radioactive guanethidine, debrisoquin, amiloride or guanidine and the platelet - bound radioactivity was measured. Guanethidine and debrisoquin were taken up by a saturable energy - dependent process inhibited by 5-hydroxytryptamine (5-HT), desipramine, amphetamine, cocaine, and quinidine. Amiloride and guanidine entered by a non-saturable mechanism not affected by metabolic - inhibitors, 5-HT or drugs which interfere with the 5-HT transport process. Unlike guanethidine, amiloride released 5-HT from loaded platelets and accumulation was partly blocked by reserpine. Guanethidine and debrisoquin probably utilize the 5-HT transport mechanism while amiloride and guanidine enter the cells by diffusion. However, because amiloride released 5-HT from loaded cells some of the bound amiloride may be related to 5-HT binding sites. Evidence for intracellular binding was obtained in efflux experiments. When platelets loaded with amiloride or guanethidine were resuspended and incubated in drug - free plasma, most drug was retained and efflux was not affected by metabolic inhibitors. When the effects of 5-HT, reserpine, and amphetamine were tested for their ability to enhance efflux of guanethidine and amiloride only amphetamine was active. It released guanethidine but not amiloride, thus suggesting that a specific type of binding site may be involved. Clearly accumulation of these drugs by platelets is not by means of a continuous uptake and loss mechanism in the outer membrane. 32 references. (Author abstract)

150318 Vaupel, D. B.; Martin, W. R. NIMH, Addiction Research Center, P. O. Box 2000, Lexington, KY 40507 Interaction of oxotremorine with atropine, chlorpromazine, cyproheptadine, imipramine and phenoxybenzamine on the flexor reflex of the chronic spinal dog. **Psychopharmacologia (Berlin). 30(1):13-26, 1973.**

The central antimuscarinic actions of several drugs, atropine, phenoxybenzamine, cyproheptadine, imipramine and chlorpromazine, were determined by their ability to antagonize oxotremorine induced facilitation of the electrically evoked flexor reflex and production of the stepping reflex in the chronic spinal dog. The drug actions and interactions were determined by sequentially infusing the antagonist, methylatropine and oxotremorine and observing changes in flexor reflex amplitude. The facilitation of the flexor reflex and evocation of the stepping reflex produced by oxotremorine in the methylatropine pretreated animal are thought to be due to a direct action on the spinal cord. Atropine, cyproheptadine, imipramine and chlor-

promazine depress the amplitude of the flexor reflex and phenoxybenzamine produces a slight enhancement. The interaction studies demonstrate that atropine almost completely prevents the spinal cord effects of oxotremorine while phenoxybenzamine shows no antagonism. Imipramine, chlorpromazine and cyproheptadine demonstrate the same relative degree of partial antagonism and antimuscarinic activity in the spinal cord. These findings suggest that facilitatory muscarinic cholinergic neurons may be present either as a parallel pathway in the segmental reflex or longitudinally oriented pathways in the spinal cord. 28 references. (Author abstract)

150353 Panksepp, Jaak; Booth, D. A. Dept. of Psychology, Bowling Green State Univ., Bowling Green, OH 43403 Tolerance in the depression of intake when amphetamine is added to the rat's food. **Psychopharmacologia (Berlin). 29(1):45-54, 1973.**

The mechanism underlying the tolerance to the anorexigenic effects of amphetamine following continuous drug administration was studied, along with the possibility that the tolerance is mediated by the hypothalamus. The subjects were eight male Lister hooded rates, who were placed on an amphetamine adulterated diet (0.2mg drug per gram of chow). The rats exhibited a depression in food intake, but after 1 week this effect disappeared. The decreased effectiveness of the drug was attributed primarily to accruing deprivation rather than to behavioral or pharmacological tolerance. Ventromedial hypothalamic lesions attenuated the tolerance, but lateral hypothalamic lesions decreased the basic anorexigenic effects of the drug. Since the ventromedial hypothalamus is thought to energize feeding behavior, these results further support the conclusion that tolerance to the anorexigenic effects of amphetamine is caused by food deprivation. 15 references. (Author abstract modified)

150381 Pert, Candace B.; Snyder, Solomon H. Depts. of Pharmacology and Experimental Therapeutics, Johns Hopins University School of Medicine, Baltimore, MD 21205 Opiate receptor: demonstration in nervous tissue. **Science. 179(4077):1011-1014, 1973.**

The demonstration of an opiate receptor in nervous tissue is reported. Tritiated naloxone, a powerful opiate antagonist, specifically binds to an opiate receptor of mammalian brain and guinea pig intestine. Competition for the opiate receptor by various opiates and their antagonists closely parallels their pharmacological potency. The opiate receptor is confined to nervous tissue. 15 references. (Author abstract modified)

150383 Byck, R.; Ritchie, J. M. Dept. of Psychiatry and Dept. of Pharmacology, Yale University School of Medicine, New Haven, CT 06510 Delta9-tetrahydrocannabinol: effects on mammalian nonmyelinated nerve fibers. **Science. 180(4081):84-85, 1973.**

The effect of delta9-tetrahydrocannabinol (THC) on mammalian nonmyelinated nerve fibers and a method of dissolving the THC in a nontoxic aqueous medium were investigated. The THC can be applied to tissue in vitro by dissolving it in Pluronic F68 and ethanol. It causes a decrease in size of the compound action potential of the nonmyelinated fibers of the vagus nerve of the rabbit. This effect appears to be dose related and chloride dependent. Effects on other measurable parameters of nerve function seem to be minimal. Although the amounts required seem to be higher than those required to produce hallucinogenic effects in man, this effect is consistent with other work on delta9-THC and may ultimately account for a significant portion of the pharmacological activity of the drug. 11 references. (Author abstract)

150386 Argyle, Edward. Dominion Radio Astrophysical Observatory, Penticton, British Columbia, Canada Circadian variation of the lethality of methadone. **Nature (London). 242(5396):332, 1973.**

An error in calculation is pointed out in reference to an article by Lenox and Frazier which reported the discovery of a circadian variation of methadone tolerance in rats. It is suggested that their use of the x2 test is incorrect and that the experimental results do not support their hypothesis. Survival statistics in experiments with small groups are binomial, not Gaussian or Poisson. Statistical interpretation of the results of this experiment is complicated by the fact that previous work cited by Lenox and Frazier, had suggested that survival would be greatest at 0900 hr, only one time interval away from the 0500 hr group. If the work is repeated, it will require only eight survivals at 0500 hr or 0900 hr to rule out the null hypothesis. It is also recommended that the drug be used at the LD-50 rather than at the LD-80 level. 2 references.

150397 Ogura, Chikara; Kimishima, Kenjiro. Dept. of Psychiatry, Tottori University of Medicine, Yonago, Japan Central nervous actions and screening methods of antidepressants. **Folia Psychiatrica et Neurologica Japonica (Tokyo). 26(4):291-317, 1972.**

The mechanism of central actions of antidepressants were studied in experimental animals. Tests were made on general behavior, anticonvulsant activity in maximal electroshock seizure, antireserpinic action, antagonistic action to methamphetamine excitation, anesthesia induced by hexobarbital, hypertension due to noradrenaline, hypotension induced by acetylcholine, antitremorine action and antagonism for physostigmine in unanesthetized mice and rabbits. It appears that the mechanism of antidepressants is related to the changes of biogenic amines in the brain and to the central autonomic functions. Imipramine, amitriptyline and nialamide were related intimately to the changes of biogenic amine and to the inhibitory effects of parasympathetic functions. Diazepam was connected with the tranquilizing effects and the inhibitory effects of parasympathetic functions, and dimethylaminoethanol had no relation to the autonomic functions. 30 references. (Author abstract)

150399 Sakurai, Yukihiko; Takahashi, Ryo. Dept. of Neuropsychiatry, Nagasaki University School of Medicine, Nagasaki, Japan Effects of chlorpromazine and phenobarbital on rat liver and brain oxidative N-oxidase and N-demethylase activities. **Folia Psychiatrica et Neurologica Japonica (Tokyo). 26(4):331-337, 1972.**

The effects of acute and chronic treatment of male Wistar rats with chlorpromazine (CPZ) and phenobarbital on the N-oxidase and N-demethylase activities of the liver and brain were investigated. The acute treatment with CPZ caused a reduction in body weight, but no change in liver weight. The measured enzyme activities of liver homogenates decreased by 12 to 19% compared with the controls. These decreases were not statistically significant in every age group, but tend to be comparatively marked accompanied with aging. Phenobarbital produced no significant change in body weight, but brought about slight enlargement of the liver, and caused induction of the enzyme activities. On daily treatment with CPZ, the body weights went back to their initial weights within 7 days, and the activities in liver homogenates were restored to almost the same level as those of controls or slightly higher. Weights of the liver and brain did not change. The enzyme activities of the brain were negligibly low and showed no change either by treatment with CPZ or phenobarbital. These data suggest the possibility that when CPZ is medicated in patients, its plasma level might increase initially and then decrease gradually during medication, following the changes of its enzyme metabolizing activities. 34 references. (Author abstract)

150402 Carlsson, A.; Davis, J. N.; Kehr, W.; Lindqvist, Margit; Atack, C. V. Dept. of Pharmacology, University of Goteborg, Fack, S-400 33 Goteborg 33, Sweden Simultaneous measurement of tyrosine and tryptophan hydroxylase activities in brain in vivo using an inhibitor of the aromatic amino acid decarboxylase. **Naunyn-Schmiedeberg's Archives of Pharmacology (Berlin). 275(2):153-168, 1972.**

Tyrosine and tryptophan hydroxylase activities in brain in vivo were simultaneously measured using an inhibitor of the aromatic amino acid decarboxylase. Dihydroxyphenylalanine (DOPA) and 5-hydroxytryptophan (5-HTP) accumulated in rat brain after decarboxylase inhibition with 3-hydroxybenzylhydrazine (NSD 1015). The accumulation was linear for the first 30 minutes and occurred in several brain regions over a wide range of NSD 1015 doses. The accumulation of DOPA was prevented by the methylester of alpha-methyl para-tyrosine (H 44/58), a tyrosine hydroxylase inhibitor. DOPA, which accumulated before H 44/68 was given, appeared stable for at least 20 minutes. There were no significant changes in the levels of noradrenaline (NA), dopamine (DA), 5-HT or tryptophan shortly after NSD 1015 administration, but a rise in tyrosine was noted. Increased brain tyrosine after L-tyrosine administration did not alter the DOPA accumulation. These data as well as the distribution of the accumulated amino acids suggest that the accumulation of DOPA and 5-HTP after decarboxylase inhibition occurs intraneuronally, that the decarboxylase enzyme is completely inhibited, and that the accumulated products are not appreciably metabolized or transported from the region studied. Amine synthesis rates and rate constants were calculated from the data and compare well with similar values determined by other methods. The accumulation appears to be a reliable measure of the in vivo hydroxylation of tyrosine and tryptophan. 25 references. (Author abstract modified)

150409 Schnelle, Kurt; Garrett, Edward R. Animal Health Product Res. Unit., Beecham Res. Labs., Clarendon Rd., Worthing, England Pharmacokinetics of the beta-adrenergic blocker sotalol in dogs. **Journal of Pharmaceutical Sciences. 62(3):362-375, 1973.**

The time course of absorption, distribution, and excretion of the beta-blocker sotalol was studied in three unanesthetized dogs at dosage levels of 1, 2, and 4mg/kg i. v. and 2, 4, and 8mg/kg p. o. The drug was assayed in body fluids and excreta by a spectrophotofluorometric method and by counting of tritiated drug. Unchanged sotalol is excreted up to 90% (plus or minus 12%) in the urine. There was no protein binding, and the partition coefficient between plasma and red blood cells was unity. The data obtained in the studies were fitted graphically and by analog computer techniques and demonstrated no dose dependence. The graphical fit of the plasma levels following intravenous administration in accordance with a two-compartment open body model revealed a rapid distribution phase. Computer findings of plasma and urine data gave constants similar to those obtained from the graphical fits. The addition of a third tissue compartment that was in slow equilibrium with the central compartment proved necessary for a better fit of the data obtained at the high dosage level and in the 3H-sotalol assays. The 75 to 90% absorption of sotalol in solution following oral administration was rapid. 24 references. (Author abstract modified)

150424 Valverde-R., Carlos; Chieffo, Vincent; Reichlin, Seymour. Instituto Nacional de la Nutricion, Clinica de Tiroides, Mexico 22, D.F. Failure of reserpine to block ether-induced release of prolactin: physiological evidence that stress induced prolactin release is not caused by acute inhibition of PIF secretion. **Life Sciences. 12(7):327-335, 1973.**

Acute release of prolactin by stress was investigated to determine if it is caused by inhibition of prolactin inhibitory factor (PIF). Plasma prolactin levels in the rat are elevated by reserpine treatment. This effect has generally been attributed to the inhibition of the monoaminergic component of regulation of secretion of PIF. Experiments with mature, male, Sprague-Dawley rats showed that ether stress which produces prolactin release in normal rats is equally effective in stimulating prolactin release in reserpine treated animals whose initial baseline prolactin levels were elevated. These results indicate that the ether stress induced release of prolactin is not due to inhibition of the secretion of PIF, and are compatible with the view that a prolactin releasing substance mediates this acute secretory response. 28 references. (Author abstract modified)

150580 Slotkin, Theodore A.; Edwards, Keith. Dept. of Physiology and Pharmacology, Duke Univ. Med. Ctr., Durham, NC 27710 Effects of reserpine on the content and properties of rat adrenal medullary storage vesicles. **Biochemical Pharmacology (Oxford). 22(5):549-560, 1973.**

Adult male Sprague-Dawley rats were given reserpine (2.5or 10mg/kg i.p.)and the subcellular distributions of adrenal storage vesicle components (catecholamines, ATP, and dopamine beta-hydroxylase) were determined, along with the ability of the vesicles to incorporate a catecholamine (14C-epinephrine) and a non-catecholamine (3H-metaraminol). One and 4 hours after the low dose of reserpine, epinephrine uptake was inhibited 60%, while there was little change in metaraminol uptake; epinephrine uptake returned to normal after 24 hours; there was a small decrease in catecholamines and ATP and a shift in dopamine beta-hydroxylase toward lower density particles. One hour after the high dose of reserpine, the inhibition of epinephrine uptake was nearly complete, and metaraminol uptake decreased by 35%. There was little or no change in catecholamines, ATP, and dopamine beta-hydroxylase 1 and 4 hours after reserpine, but there was a marked shift after 24 hours, at which time the catecholamines and ATP had decreased. The total dopamine beta-hydroxylase activity was unchanged after 24 hours, but the distribution was shifted toward lighter particles. The uptake of epinephrine recovered gradually to 80% control levels after 4 days, while metaraminol uptake returned to normal almost immediately. By 3 days after reserpine, dopamine beta-hydroxylase exceeded control levels in all subcellular fractions, but was highest in the fraction containing storage vesicles with below normal catecholamine contents. Catecholamine and ATP levels decreased to 34% of controls between 4 hours and 2 days and then increased to 80% of controls at 4 days. 15 references. (Author abstract modified)

150581 Shikimi, Tadahiro; Kema, Ryoko; Matsumoto, Masayo; Yamahata, Yukari; Miyata, Sadao. Dept. of Pharmacology, Kyoto College of Pharmacy, Kyoto, Japan Studies on kinin-like substances in brain. **Biochemical Pharmacology (Oxford). 22(5):567-573, 1973.**

The changes in the kininogen content, kininase activity, and kinin forming activity of rat brain on administration of drugs acting on the central nervous system were investigated using adult male Wistar rats. The kininogen content of the cerebral cortex was one third that in the cerebellum or brainstem. The highest kinin forming activity was observed in the cerebral cortex with lower activities being observed in the brainstem and cerebellum. The kininogen content of the cerebellar region decreased during convulsions caused by pentetrazol, but not by strychnine or nitrogen gas inhalation. No changes were found in the kininase activity, kinin forming activity, or kininogen content of the various regions of the brain after the administration of amobarbital or inhalation of ether. 13 references. (Author abstract)

150582 Wissing, Frode; Christensen, Flemming. Royal Dental College, Dept. of Biochemistry, Vennelyst Boulevard, 8000 Arhus C, DK, Denmark The complexity of the inhibitory action of dicoumarol on the mixed function oxidase system of rat liver microsomes. **Biochemical Pharmacology (Oxford). 22(5):581-589, 1973.**

The inhibitory effect of dicoumarol on the mixed function oxidase system of liver microsomes from phenobarbital treated white male rats was studied. Lineweaver-Burk plots of p-nitroanisole O-demethylation were nonlinear in the presence of dicoumarol but linear in its absence. At high concentrations of p-nitroanisole the inhibition was partially overcome, indicating a competition between the substrate and dicoumarol for the enzyme. Furthermore, it was found that dicoumarol promotes a time and concentration dependent conversion of cytochrome P-450 to P-420 and that it inhibits cytochrome P-450 reduction. While these phenomena seem directly related to the inhibitory action of dicoumarol on the overall p-nitroanisole demethylase reaction, an inhibitory effect of dicoumarol on NADH, ferricyanide reductase, on the contrary, was shown not to be related to the inhibition of the demethylation process. 12 references. (Author abstract)

150583 Dybing, Erik. Inst. of Pharmacology, Univ. of Oslo, Blindern, Oslo 3, Norway Inhibitory effects of chlorpromazine and diethylaminoethyl diphenylvalerate (SKF 525-A) on alanine incorporation into protein and alpha-aminoisobutyric acid uptake in rat hepatoma cells in culture. **Biochemical Pharmacology (Oxford). 22(5):591-600, 1973.**

The effects of chlorpromazine (CPZ) and diethylaminoethyl diphenylvalerate (SKF 525-A) on the incorporation of alanine into protein and the uptake of alpha-aminoisobutyric acid (AIB) in rat hepatoma cell was studied. CPZ and SKF 525-A above 0.01 mM inhibit the incorporation of alanine in cultures of a clonal strain of rat hepatoma cells. Fifty percent inhibition was noted for both drugs at approximately 0.07 mM, and with CPZ (0.15 mM) 97% and with SKF 525-A (0.20 mM) 96% inhibition, respectively, was found. Brief washing partially restores normal incorporation rates. CPZ (0.15 mM) reduced the amount of total intracellularly accumulated alanine to 11% of controls. The nonmetabolizable amino acid AIB is actively transported by these cells; CPZ and SKF 525-A inhibit the uptake of AIB, with 44% reduction at a CPZ concentration of 0.15 mM and a 55% reduction at an SKF 525-A concentration of 0.20 mM. The rate of AIB efflux from the cells was also reduced by CPZ (0.15 mM) and SKF 525-A (0.20 mM). It is concluded that CPZ and SKF 525-A in a similar pattern inhibit the transport of amino acids in these hepatoma cells in culture. 28 references. (Author abstract modified)

150584 Sanders, G. T. B. Lab. of Biochem., State Univ., Leiden, The Netherlands Distribution of some structurally related pharmacological agents in rat brain. **Biochemical Pharmacology (Oxford). 22(5):601-607, 1973.**

The regional distribution of some structurally related psychoactive agents in the rat brain was studied to provide some indication as to why chemically related compounds give different therapeutic results. Single doses of chlorpromazine, chlorprothixene, chlorperphenthixene, and perphenazine were injected intravenously into adult male Wistar rats. At four different times postinjection, the distribution of the drugs in 10 parts of the brain was measured. A striking similarity between the patterns of the first three drugs was noted, while that of perphenazine deviated from this pattern. It is suggested that a binding to lipids might be one of the important factors governing the regional distribution of these four psychopharmacological agents. 15 references. (Author abstract modified)

150664 Anden, Nils-Erik; Strombom, Ulf; Svensson, Torgny H. Dept. of Pharmacology, Univ. of Goteborg, Fack, S-400 33, Goteborg 33, Sweden Dopamine and noradrenaline receptor

stimulation: reversal of reserpine-induced suppression of motor activity. **Psychopharmacologia (Berlin). 29(4):289-298, 1973.**

The motor activity of reserpine treated female mice (N.M.R.I.)was recorded after drug treatments causing stimulation of dopamine or noradrenaline receptors or both. The dopamine receptor stimulating agent apomorphine elicited an activation with stereotypies whereas the noradrenaline receptor stimulating agent clonidine was inefficient. Combined treatment with apomorphine and clonidine induces marked stimulation with jumping. Biochemically, clonidine does not significantly interfere with the metabolism of apomorphine. Administration of metatyrosine, which stimulates dopamine receptors, produces an activation with stereotypies. Administration of alpha-methyldopa, which weakly stimulates dopamine receptors and strongly stimulates noradrenaline receptors, produces a slight activation. When metatyrosine was given in combination with clonidine, or when alpha-methyldopa was given in combination with apomorphine, a substantial activation was found as after treatment with apomorphine plus clonidine. The results indicate that a dopamine receptor activity is of basic importance for motor activity and that changes in noradrenaline receptor activity can markedly affect the motor activity, qualitatively and quantitatively, provided that there is a certain dopamine receptor activity. It is also concluded that the effects of drugs on the dopamine mechanisms in the corpus striatum and on the noradrenaline mechanisms in the spinal cord are of value in predicting behavioral effects. 20 references. (Author abstract)

150668 Pakkenberg, H.; Fog, R.; Nilakantan, B. Laboratory of Neuropathology, Kommunehospitalet, DK-1399, Copenhagen, Denmark The long-term effect of perphenazine enanthate on the rat brain. Some metabolic and anatomical observations. **Psychopharmacologia (Berlin). 29(4):329-336, 1973.**

The long-term effect of perphenazine enanthate (3.4mg/kg per injection) administered subcutaneously to 40 adult white Wistar rats every second week for a year (a total of 31mg per animal) was investigated. The animals were observed weekly and only a few became cataleptic during brief periods. After treatment for one year, 3H-uridine and 3H-lysine were administered intravenously and the labeling was studied by microautoradiography. Labeling of the cortical cells in the treated animals was slightly greater than in the control animals. The converse was found in the basal ganglia in the case of uridine. None of these differences were significant. In counting nerve cells in the cortex and in the basal ganglia, a significantly lower number of nerve cells was found in the basal ganglia in the treated group. Histological investigation of the lungs, liver, spleen and kidneys showed only insignificant changes in the tissues. All the investigations were performed blind. 9 references. (Author abstract)

151350 Jonsson, Gosta; Sachs, Charlotte. Dept. of Histology, Karolinska Institutet, S-104 01 Stockholm 60, Sweden Pharmacological modifications of the 6-hydroxy-dopa induced degeneration of central noradrenaline neurons. **Biochemical Pharmacology (Oxford). 22(14):1709-1716, 1973.**

The effect of certain drugs on the nialamide + 2,4,5-trihydroxyphenylalanine (6-OH-dopa) induced degeneration of central noradrenaline (NA) neurons was investigated by measuring the uptake in vitro of 3H-NA in mouse brain slices. Nialamide + 6-OH-dopa treatment led to a more pronounced reduction of 3H-NA uptake in the cerebral cortex than in the hypothalamus, indicating that the NA nerve terminals in the cerebral cortex are more sensitive to 6-hydroxydopamine (6-OH-DA). Reserpine was ineffective in modifying the neurotoxic effects, although a small protective effect was seen in the hypothalamus. Similar results were obtained when the uptake of 3H-metaraminol was measured. Both desipramine (DMI) and amphetamine could counteract the nialamide + 6-OH-dopa induced degeneration, which in the case of DMI was almost complete. The inhibition of catechol-O-methyl transferase by 4-tropolone acetamide led to a small potentiating effect. There were no significant effects on the 3H-DA uptake in the nucleus caudatus, indicating that the dopamine nerve terminals in this region were unaffected. 19 references. (Author abstract)

151351 Winsnes, Arnt; Dutton, Geoffrey J. Dept. of Biochem. Med. Sciences Inst., The Univ., Dundee, Scotland Comparison between o-aminophenol glucuronidation in liver slices and homogenates from control and phenobarbital-treated Wistar and Gunn rats. **Biochemical Pharmacology (Oxford). 22(14):1765-1771, 1973.**

Glucuronidation rates were studied in sliced and homogenized liver from control and phenobarbital treated Gunn and Wistar rats of both sexes. Ap-

parent KUDP-glucuronate values were increased by both UDP-N-acetylglucosamine and digitonin, but not by the specific activator diethylnitrosamine; the values were similar for both strains and were not significantly affected by phenobarbital pretreatment; sex differences were encountered. The apparent Vmax values were increased 30 to 65 fold for Wistar rats and 400 to 1600 fold for Gunn rats in the maximally activated homogenates. Phenobarbital pretreatment approximately doubled the Vmax of maximally activated enzyme in all animals, but had little effect on the Vmax of native or partially activated preparations. Slices of Gunn rat liver glucuronidated o-aminophenol at rates of 30 to 44% of those of Wistar rats; the rates in both strains exhibited a consistent sex difference and increased following phenobarbital treatment. Comparison of the results from slices and homogenates containing physiological concentrations of UDP-glucuronate suggested that in both sexes and strains UDP-glucuronyltransferase activity in vivo is higher than that observed in native unactivated homogenates, presumably because of endogenous activators; however, since glucuronidation in similar, but maximally activated, homogenates was well above that in the slices, the enzyme may still remain partially latent in vivo. 30 references. (Author abstract modified)

151385 Darzynkiewicz-Czernik, Daniela; Czarnecka, Elzbieta; Kubik-Bogucka, Elzbieta. Zaklad Farmakologii AM, ul. Narutowicza 120a, Lodz, Poland /Pharmacological studies concerning the simultaneous use of elenium and ethyl alcohol./ Badania farmakologiczne skojarzonego stosowania elenium i alkoholu etylowego. **Przeglad Lekarski (Warszawa). 79(9):792-797, 1972.**

The effect of intraperitoneal administration of elenium and ethyl alcohol in 0.33 or 0.20 LD50 dose combinations on hexobarbital induced sleep and motor activity has been studied in 180 mice and effect on blood pressure and ECG determined in 10 rabbits. Results were statistically analyzed. It was found that ethyl alcohol acts synergistically with elenium, causing a greater prolongation of hexobarbital sleep than elenium alone and causes a reduction of activity. In rabbits it leads to increased hypotensive action and causes considerable changes in ECG pattern, effects which are not observed when the drugs are administered separately. It is concluded that the use of elenium in conjunction with ethyl alcohol may produce serious side-effects which affect the CNS as well as the circulatory system. 20 references. (Author abstract modified)

151429 Bloom, Floyd E. Lab. of Neuropharmacology, NIMH, St. Elizabeths Hospital, Washington, DC 20032 Cytochemistry of synaptic pharmacology. (Unpublished paper) Washington, DC, NIMH, St. Elizabeths Hospital, 1973. 2 p.

A discussion is presented of the relationship to pharmacology of cytochemical studies related to synaptic transmission. Studies into the nature of the specialized interneuronal contact recognized by morphologists as the synapse relate directly to the synaptic actions of drugs which alter protein and nucleic acid synthesis while affecting behavioral tests suggestive of learning. The drug studies have led to a general hypothesis that synthesis or regulation of a class of proteins may lie behind the establishment of long-term memory. Studies on the ultrastructural localization of synaptic transmitters offer an essential fact regarding the range of transmitter substances with which a given population of afferent synapses can transmit. Methods for identifying molecules as small as neurotransmitters have been developed with increasing regularity and several methods are now available for catecholamines. Cytochemical studies can be directed at the enzymatic composition of neurons and glia to analyze the range of biochemical and biological reactions into which centrally active drugs may participate. 12 references.

151435 Segal, Menahem; Sims, Kenneth; Maggiora, Linda; Smissman, Edward. Lab. of Neuropharmacology, NIMH, St. Elizabeths Hospital, Washington, DC 20032 Microiontophoretic studies of conformationally restricted analogues of gamma-aminobutyrate of rat hippocampal neurons. (Unpublished paper) Washington, D.C., St. Elizabeths Hospital, NIMH, 1973. 12 p.

The effect of gamma-aminobutyrate (GABA) is compared against that of a series of aminocyclohexanecarboxylic acid compounds in a physiologic test system utilizing neurons of the hippocampus of male Sprague-Dawley rats. Sixty two cells were tested for their responses to the conformers. All were inhibited by GABA. The response of hippocampal neurons to iontophoretic application of the GABA conformers varied from a complete blockade of spike discharge to a moderate decrease in firing rate to no effect at all, depending on the separation of the carboxy and amino groups. The results indicate that a

precise spatial separation of amino and carboxylic acid groups is necessary to mimic the physiologic effects of gamma-aminobutyric acid on hippocampus neurons. 15 references.

151629 Tonge, Sally R. School of Pharmacy, Liverpool Polytechnic, Byrom St., Liverpool, U.K. Catecholamine concentrations in discrete areas of the rat brain after the pre- and neonatal administration of phencyclidine and imipramine. **Journal of Pharmacy and Pharmacology (London). 25(2):164-166, 1973.**

The effects of the prenatal and neonatal administration of the psychotropic drugs phencyclidine and imipramine on the metabolism of the catecholamines within the central nervous system was investigated using male Wistar rats. Phencyclidine produced permanent effects on the concentrations of both noradrenaline and dopamine in discrete regions of the CNS, while imipramine did not. The rats showed no signs of disturbed behavior following treatment with either drug, and the effects of the drugs were similar in rats killed 3, 6, and 9 months after weaning. 8 references.

151631 Vasko, M. R.; Hug, C. C., Jr. Dept. of Pharmacology, Univ. of Michigan Med. School, Ann Arbor, MI 48104 Is the uptake of narcotic analgesics by cerebral cortical slices mediated in part by active transport? **Journal of Pharmacy and Pharmacology (London). 25(2):180-183, 1973.**

To determine whether the uptake of narcotic analgesics by cerebral cortical slices is mediated in part by active transport, cerebral cortical slices from male Holtzman rats were incubated with (3H)dihydromorphine ((3H)DHM) and nalorphine, naloxone, or codeine. The data obtained offer substantial evidence that (3H)DHM and other narcotic analgesics are taken up into rat cerebral cortical slices by a process having many of the characteristics of active transport, including uptake against an apparent concentration gradient, saturability, metabolic dependence, and substrate competition. 6 references.

151634 Beckett, A. H.; Coutts, R. T.; Ogunbona, F. A. Dept. of Pharmacy, Chelsea College, Univ. of London, Manresa Rd., London, S.W.3, U.K. N-ethyl-alpha-methyl-alpha-(m-trifluoromethylbenzyl)nitrone- --the major in vitro metabolic product of fenfluramine in guinea-pig liver microsomal fractions. **Journal of Pharmacy and Pharmacology (London). 25(2):190-192, 1973.**

The in vitro metabolism of fenfluramine by means of guinea pig liver homogenates is described, along with the occurrence of a novel compound (a nitrone) as a major product of metabolism. Following the incubation of fenfluramine with the 10000g supernatant of homogenized guinea pig liver for 30 minutes, chromatography revealed the presence of eight products in addition to unchanged fenfluramine. Three of these products were identified as: N-hydroxyfenfluramine (Ib); (m-trifluoromethylbenzyl)methylketoxime; and a simple oxidation product of (Ib), later identified as N-ethyl-alpha-methyl-alpha-(m-trifluoromethylbenzyl)nitrone (III). It is concluded that (III) is the major in vitro metabolic product of fenfluramine in the guinea pig; similar results were also obtained using the 10000g supernatant from homogenized rat liver. The nitrone III is classified as a metabonate. 8 references.

151643 Karoum, F.; Costa, E. Lab. of Preclinical Pharmacology, NIMH, St. Elizabeths Hospital, Washington, DC 20032 The excretion of norepinephrine and dopamine alcoholic metabolites after 6-hydroxydopamine. (Unpublished paper) Washington, DC, Saint Elizabeths Hospital, NIMH, 1973. 14 p.

The effect of 6-hydroxydopamine (6HD) on the excretion of norepinephrine and dopamine alcoholic metabolites was studied in male Sprague-Dawley rats. Urinary excretions of 4-hydroxy-3-methoxyphenylglycol (HMPG) and 4-hydroxy-3-methoxyphenylethanol (HMPE) sulfates (HMPG-SO4 and HMPE-SO4) and of their two glucuronides (HMPG-Gluc and HMPE-Gluc) were critically studied in normal and demedullated rats after 6HD treatment. 6HD hydrobromide (25mg/kg) was administered either intravenously (chemical sympathectomy) or intraventricularly (central sympathectomy). Demedullation did not significantly change the output of any of the above conjugated metabolites. Chemical sympathectomy significantly reduced the excretion of HMPG-SO4 by about 40%. The other metabolites were not changed by chemical sympathectomy. Evidence indicated the presence in the peripheral sympathetic nervous system of nerve terminals resistant to destruction by 6HD. These resistant nerve terminals were further shown to be involved in the production of HMPG-Gluc. Central sympathectomy fails to change the urinary excretion of the metabolites studied, including HMPG sulfate or glucuronide. 28 references. (Author abstract modified)

151650 Weil-Malherbe, H. St. Elizabeths Hospital, NIMH, Washington, DC 20032 Inhibition of brain glutamate dehydrogenase by a metabolite of cycloheximide and its relevance for the mechanism of ammonia formation in brain slices. (Unpublished paper) Washington, DC, St. Elizabeths Hospital, NIMH, 1973.

The effects of cycloheximide on the inhibition of brain glutamate dehydrogenase and the mechanism of ammonia formation in brain slices are discussed. Ammonia formation of guinea pig brain slices is strongly inhibited by the addition of 10-2M cycloheximide. The utilization of endogenous glutamic acid and GABA was strongly inhibited. Alanine, leucine, and isoleucine also showed increased accumulation, whereas the accumulation of aspartic acid was decreased. Addition of alpha-ketoglutarate reversed the cycloheximide inhibition of GABA utilization. These results are interpreted in terms of an inhibition of glutamate dehydrogenase (GDH) leading to a depletion of alpha-ketoglutarate and thus preventing the transamination of GABA and other amino acids on the one hand and the transamination of glutamate with oxaloacetate (arising from alpha-ketoglutarate) on the other. While cycloheximide itself, or its product of hydrolysis formed spontaneously in weakly alkaline solution, was only slightly inhibitory, a metabolite formed in the presence of brain slices produced marked inhibition of pure beef liver GDH, competitive with glutamate. When acetone powders were prepared from brain slices previously incubated with cycloheximide, their GDH activity was significantly lower than that found in acetone powders prepared from control slices or from slices incubated with several other inhibitors of GDH. It is concluded that GDH is the terminal deaminating enzyme in the process of ammonia formation by brain slices. (Author abstract modified)

151654 Jacobowitz, David M. Laboratory of Clinical Science, NIMH, Bethesda, MD 20014 Effects of 6-hydroxydopa. (Unpublished paper) Bethesda, MD, NIMH, 1973.

The effects of 6-hydroxydopa were studied in mice and rats. 6-Hydroxydopa (100mg/kg) injected into mice caused a marked reduction in brain and heart norepinephrine (NE) in 24 hours. Perfusion of isolated hearts of 6-hydroxydopa treated rats with NE did not increase the number of histochemically observable adrenergic nerve terminals. Fluorescence histochemical observations of the brain showed that there was a reduction in the number of noradrenergic terminals 24 hours after i.v. 6-hydroxydopa. Injection of 6-hydroxydopa into the lateral cerebral ventricles of rats produced a graded dose dependent reduction of NE in various brain parts. Emotionality scores were increased in rats after i.v. injection of 6-hydroxydopa and returned to normal after 2 months, when NE levels in the telencephalon and hindbrain had also returned to normal. A significant increase in shock induced aggression occurred in rats, 4 days after i.v. injection of 6-hydroxydopa (90microg). Because of the buildup of fluorescent catecholamine in noradrenergic nonterminal axons, the NE containing neurons of the rat brain were capable of being mapped. It is concluded that 6-hydroxydopa is a valuable agent for the study of the influence of noradrenergic nerves on various modes of behavior in addition to its usefulness in mapping the noradrenergic axonal pathways of the brain.

151656 Martin, W. R.; Sloan, Jewell W. NIMH, Addiction Research Center, Lexington, KY 40507 The possible role of tryptamine in brain function and its relationship to the actions of LSD-like hallucinogens. (Unpublished paper) Lexington, KY, Addiction Research Center, NIMH, 1973. 20 p.

The effect of tryptamine on brain function and the relationship of tryptamine to the actions of LSD-like hallucinogens were studied. In the chronic spinal dog, LSD not only facilitated the flexor reflex but evoked the stepping reflex. Other LSD-like hallucinogens such as psilocin, mescaline, DOM, dimethyltryptamine, and diethyltryptamine also facilitated the flexor reflex and evoked the stepping reflex in the chronic spinal dog. Both cyproheptadine (0.2mg/kg) and chlorpromazine (5mg/kg) antagonized the actions of LSD, psilocin, and mescaline; whereas, phenoxybenzamine (4mg/kg) did not. None of them antagonized the increase in pulse rate produced by any of the LSD-like hallucinogens to a statistically significant degree. Tryptamine (0.5mg/kg/min) facilitates the flexor reflex, evokes stepping movements, and increases respiratory rate, pulse rate, and pupillary diameter. The respiratory and pupillary effects of tryptamine were significantly antagonized by both chlorpromazine and cyproheptadine as was its ability to evoke the stepping reflex and facilitate the flexor reflex. When tryptamine is infused intravenously in man, its effects are similar to those seen in the dog and to LSD in man. When dogs are tolerant to LSD, they are cross-tolerant to the

actions of tryptamine. Tryptamine has been identified in the steer brain as well as the brain and spinal cord of the dog; however, the levels of tryptamine are higher in the human brain. 22 references.

151657 Meek, J. L.; Foldes, A. Lab. of Preclinical Pharmacology, NIMH, St. Elizabeths Hospital, Washington, DC 20032 Activity of brain phenolsulfotransferase for the catecholamines and their metabolites. (Unpublished paper) Washington, DC, St. Elizabeths Hospital, NIMH, 1973.

Phenolsulfotransferase (PST) was purified and its distribution in the brain was studied. The phenols were incubated with enzyme and 35S-phosphoadenosine phosphosulfate (PAPS); then barium hydroxide was used to precipitate the unreacted PAPS. The labeled sulfate esters remained in solution and were decanted into a scintillation vial for measurement. There were large differences in PST levels in the various regions of the brain. For kinetic studies, PST was partially purified by chromatography on DEAE sephadex. The pH optimum of PST for phenol methoxyhydroxyphenylglycol (MOPEG), dihydroxyphenylglycol (DOPEG), dihydroxyphenylacetic acid (DOPAC), and homovanillic acid (HVA) ranged from 5.5to 6.8. At pH 6.4, MOPEG and DOPEG had the highest relative velocity followed by HVA, phenol and DOPAC. Dopamine and norepinephrine were also substrates for PST, but with pH optima of 9. When 35S-sulfate was injected intraventricularly, conjugation of endogenous phenols occurred. Four conjugates were detected after separation by electrophoresis and two dimensional thin layer chromatography. The compounds formed were apparently the sulfate esters of MOPEG, DOPEG, HVA, and DOPAC. It is concluded that brain phenolsulfotransferase is widely but unevenly distributed in the brain, that it can sulfurylate a variety of compounds related to the catecholamines, and that it may also conjugate DOPAC, HVA, and possibly phenolic drugs which enter the brain. (Author abstract modified)

151705 Essman, Walter B. Department of Psychology, Queens College, C.U.N.Y., Flushing, NY Contributions of differential housing to brain development: some implications for sleep behavior. **In: Clemente, C., Sleep and the maturing nervous system. New York, Academic Press, 1972. 470 p. (p. 99-107).**

The effects of differential housing on the postnatal development of brain cellular specificity and metabolism were investigated. Mice weaned at 21 days were housed either singly or aggregated, five per cage, for 28 days, at which time the brain tissue was removed and prepared for assay. As a consequence of isolation housing, 5-hydroxyindoleacetic acid, the major metabolite of 5-hydroxytryptamine (5-HT) in the brain, was elevated, whereas 5-HT turnover time in at least two areas of the brain (with somatosensory inputs) was decreased. Neuronal RNA levels in cerebellar cortex were decreased in isolated animals, but glial RNA was elevated. These findings supported the theory that isolation housing and functional denervation provided thereby to the somatosensory system can lead to cellular supersensitivity in that system. The results of these studies suggest that regional, cellular, and subcellular metabolic changes that can be brought about by differential housing, involve, in part, substrates and possible mechanisms relevant to sleep behavior. The effects of differential housing on barbiturate induced sleep were also studied. After either isolation or aggregation, mice were injected with either 50mg/kg of amphetamine sulfate or an equivalent volume of 0.9% saline. From the onset of injection, sleeping time was measured within a 120-minute interval, and locomotor activity level was also measured for 15 minutes. Aggregated mice showed a mean barbiturate induced sleeping time of 78 minutes during the 120 minutes; isolated animals slept for only 42 minutes. Isolated mice showed 25% more spontaneous locomotor activity than did aggregates. It is suggested that metabolic differences caused by differential housing may be responsible for the observed differences in drug effect. 36 references.

151707 Himwich, Williamina A. Thudichum Psychiatric Research Laboratory, Galesburg State Research Hospital, Galesburg, IL Developmental changes in neurochemistry during the maturation of sleep behavior. **In: Clemente, C., Sleep and the maturing nervous system. New York, Academic Press, 1972. 470 p. (p. 125-138).**

Investigations to determine the relationship between biochemical changes and the amount of time occupied by the different types of sleep during development in various animals are reviewed. The effects of drugs on sleep behavior in neonates is also discussed. In studies of kittens, the change in the sleep cycle consists primarily of a decrease in activated sleep and an increase in

slow wave sleep (SWS). In the rabbit the same changes in the relationship between SWS and paradoxical sleep occur, but the mature relation is attained at an earlier age. The development of biogenic amines in the brains of young animals has also been studied. In general, it has been found that the levels of noradrenaline, dopamine, and serotonin (5-HT) increase from birth to adulthood. In only a few instances, has it been possible to correlate changes in the levels of these biogenic amines with concomitant determination of sleep in the same species. The administration of chlorpromazine, 10mg/kg orally in a single dose repeated no more often than every 5 days, had little effect on wakefulness in the kitten until the age of 21 to 23 days, when wakefulness was significantly decreased. In tests with other drugs, propericiazine had no effect on wakefulness but increased SWS and decreased activated sleep; haloperidol reduced wakefulness and increased SWS; imipramine increased wakefulness slightly in young animals and decreased it in older ones. Amphetamine also increased wakefulness and SWS while markedly depressing activated sleep. It is suggested that the effects of psychotropic drugs are less apparent in neonates and become mare marked during the growth period. 28 references.

151733 Betz, A. Lorris; Gilboe, David D. Department of Neurology and Physiology, University of Wisconsin, Madison, WI 53706 Effect of pentobarbital on amino acid and urea flux in the isolated dog brain. **American Journal of Physiology. 224(3):580-587, 1973.**

The net flux of 28 amino acids and related compounds was determined by arteriovenous difference in the isolated dog brain. Eleven brains were isolated with halothane (I) anesthesia, 11 with methoxyflurane (II), and 12 with sodium pentobarbital (III). The amino acid uptake pattern with I, which was considered to be comparable to that of the waking brain because of loss of I by evaporation after isolation, showed significant uptake of aspartic acid, carnosine, glycine, isoleucine, leucine, proline, serine, and valine, but total nitrogen flux was zero. Continued presence of the anesthetic after isolation with III allowed evaluation of the effect of pentobarbital on amino acid flux. This group showed significant uptake of only isoleucine and leucine with significant efflux of asparagine plus glutamine, glutamic acid, phosphoserine, taurine, and urea. There was a highly significant efflux of total nitrogen. These results are attributed to ammonia detoxification as the result of increased amino acid catabolism following inhibition of glycolysis. The very large efflux of urea after III demonstrates that the brain can synthesize urea under appropriate circumstances. 57 references. (Author abstract)

151814 Segal, A. M. no address /On the mechanism of the anticonvulsive action of derivatives of benzodiazepine and diphenylhydantoin./ K mekhanizmu protivosudorozhnogo deystviya proizvodnykh benzodiazepina i difenilgidantoina. **In: Portnov, A., Epilepsiya (klinika, patogenez, lecheniye). Moscow, Institut psikhiatrii MZ RSFSR, 1972. 543 p. (p. 525-528). 2 rub.**

Experimental study of several peculiarities of the anticonvulsant effect of diazepine and nitrazepam in comparison with diphenylhydantoin and also of the effects of simultaneous application of these substances in intact and hyponatremic rats has shown that the combination of diphenine with diazepam and with nitrazepam was more effective than the action of each of these substances in isolation. Diazepam and nitrazepam possessed a less expressed anticonvulsant effect. It was suggested that the nature of the action of diazepam, and of nitrazepam with diphenine in particular, was determined primarily by its potentiating character. The low toxicity of diazepam and nitrazepam made it possible to decrease the dose of diphenine significantly upon its simultaneous administration with these preparations.

151906 Zak, Sylvia B.; Gilleran, T. G.; Lukas, G. Research Dept., Pharmaceuticals Div., Ciba-Geigy Corp., Ardsley, NY 10502 Interaction of the imidazolone derivative GPA 1851 with hepatic microsomal drug metabolism. **Pharmacology. 8(4-6):222-231, 1972.**

The biological disposition of GPA 1851, a compound with antiinflammatory properties, was investigated using adult female Sprague-Dawley rats, beagle dogs, and rhesus monkeys. During these studies, a dramatic prolongation of barbiturate sleeping time was observed in the animals pretreated with GPA 1851. Both in vivo and in vitro findings indicate that the interaction of GPA 1851 with the barbiturates was a result of its inhibition of hepatic microsomal enzyme activity. However, further studies demonstrated that repeated dosing with GPA 1851 abolished the inhibitory effect of a single dose. 15 references. (Author abstract)

151907 Hitzemann, R. J.; Loh, H. H.; Domino, E. F. Dept. of Pharmacology, Univ. of Calif. Medical Center, San Francisco, CA 94122 Effect of scopolamine on the cerebral accumulation of 14C-catecholamines from 14C-tyrosine. **Pharmacology. 8(4-6):291-299, 1972.**

The effect of the antimuscarinic and psychotomimetic agent, scopolamine, on the accumulation of 14C-catecholamines formed from intracerebrally administered 14C-tyrosine was investigated using male CF1 mice. In doses from 3 to 30mg/kg, scopolamine was found to decrease the cerebral accumulation of 14C-dopamine and 14C-norepinephrine, but increase the accumulation of 14C-normetanephrine. Similar effects on 14C-catecholamine accumulation were observed when 14C-dopa was used as substrate. These effects are postulated to be causally related to the blockade of inhibitory muscarinic responses which decrease catecholamine output. It is suggested that the scopolamine induced changes in catecholamine metabolism are not directly related to the toxic psychosis induced by this drug. 33 references. (Author abstract modified)

151908 Mannisto, P. T.; Saarnivaara, Laila. Dept. of Pharmacology, Univ. of Helsinki, Helsinki, Finland Effects of lithium on the analgesia caused by morphine and two antidepressants in mice. **Pharmacology. 8(4-6):329-335, 1972.**

The effect of lithium on the antinociceptive action of morphine and two tricyclic antidepressants (imipramine and protriptyline) was studied using hot plate and phenylquinone writhing tests in male white mice. Lithium alone had no significant antinociceptive effect, but it increased morphine analgesia according to both measures and decreased the antinociceptive effect of the tricyclic antidepressants, especially that of protriptyline, according to the hot plate measure. These results support the view that the mechanism of morphine's analgesic action may be different from that of the tricyclic antidepressants. 26 references. (Author abstract)

152037 Julien, Robert M.; Kavan, Eva M. Dept. of Medical Pharmacology, Univ. of California, Irvine, CA 92664 Electrographic studies of a new volatile anesthetic agent: enflurane (ethrane). **Journal of Pharmacology and Experimental Therapeutics. 183(2):393-403, 1972.**

The effects of enflurane (ethrane) were studied on the central nervous system of cats with elecrodes chronically implanted in selected nuclei of the sensory, limbic, and diffuse projection systems. In the chronically implanted cats, anesthetic concentrations of enflurane induced bursts of high voltage spike activity separated by prolonged periods of interictal silence. In addition, residual behavioral and electrographic abnormalities were observed on the second postanesthetic day, and they persisted for 14 to 16 days. In subsequent studies, anesthetic concentrations of enflurane augmented the evoked responses to peripheral stimulation up to 500% over control levels. It is concluded that, unlike other anesthetic drugs, enflurane does not depress the activity of the CNS. It is also concluded that enflurane may provide a useful tool for the delineation of regulatory mechanisms which act to limit the development and propagation of high voltage spike activity originating in the limbic system and spreading to other encephalic areas. 35 references. (Author abstract modified)

152044 Meldrum, B. S.; Balzamo, E.; Wada, J. A.; Vuillon-Cacciuttolo, G. Dept. de Neurophysiologie Appliquee, Inst. de Neurophysiologie, C.N.R.S., 31, Chemin Joseph-Aiguier, 13-Marseille (9e), France Effects of L-tryptophan, L-3,4,dihydroxyphenylalanine and tranylcypromine on the electroencephalogram and on photically induced epilepsy in the baboon, Papio papio. **Physiology & Behavior. 9(4):615-621, 1972.**

Two monoamine precursors, L-tryptophan and L-3,4,dihydroxyphenylalanine (L-DOPA) and a monoamine oxidase inhibitor (tranylcypromine) were given to 11 chronically prepared adolescent baboons (Papio papio) to study the effects of these compounds on the EEG and on photically induced epileptic responses. L-tryptophan slowed background rhythms and increased spontaneous paroxysmal EEG activity but did not significantly influence myoclonic responses to photic stimulation, L-DOPA produced autonomic and motor changes and facilitated EEG fast activities, but did not change photically induced responses. Tranylcypromine produced marked autonomic behavioral changes and prolonged the enhancement of EEG fast activities, with a loss of spontaneous paroxysmal activities. There was a consistent reduction in, or abolition of, myoclonic and EEG paroxysmal responses to photic stimulation. L-tryptophan given after pretreatment with tranylcypromine (in a dose which did not modify photically induced responses) abolished the

myoclonic responses to photic stimulation for 6 hours and produced increased muscle tone, tremors, and severe slowing of the EEG. L-DOPA given after pretreatment with a threshold or maximal dose of tranylcypromine produced severe mydriasis and abnormal movements, and eventually hypotonia and death. Within 15 to 60 minutes of the L-DOPA injection, the EEG slowed markedly and the animals lost not only their paroxysmal responses to photic stimulation but also the normal occipital following response, and behavioral responses to visual stimuli. 26 references. (Author abstract modified)

152045 Greengrass, Pamela M.; Tonge, Sally R. School of Pharmacy, Liverpool Polytechnic, Byrom St., Liverpool, L3 3AF, England Effects of oestrogen and progesterone on brain monoamines: interactions with psychotropic drugs. **Journal of Pharmacy and Pharmacology (London). 24(Suppl.):149, 1972.**

The interactions between estrogen and progesterone and drugs effective in psychoses that may exert their therapeutic actions via brain monoamines were investigated in ovariectomized mice. The effects on noradrenaline (NA) and 5-hydroxytryptamine (5-HT), their precursors and metabolites were examined in the forebrain (cortex), middle brain (hypothalamus, thalamus), and hindbrain (pons, medulla, cerebellum, corpora quadrigemina). Both estrogen and progesterone caused depletion of NA (greater than 14%) from the brain, accompanied by increased 5-HT concentrations (greater than 14%). Dopamine concentrations were also reduced (more than 27%) by both hormones. Chlorpromazine and iproniazid antagonized the effects of estrogen and progesterone on NA metabolism; imipramine and barbiturates did not. Two drugs effective in affective disorders, chlorpromazine and imipramine, antagonized the effects of estrogen and progesterone on 5-HT concentrations, while barbiturates did not. 3 references.

152067 Duhault, J. Dept. de Pharmacol. Biochim., Centre de Recherches des Lab. Servier, 172 Ave. Charles-de-Gaulle 92, Neuilly 92, Neuilly-sur-Seine, France /Pharmacology and biochemistry of fenfluramine./ Pharmacologie et biochimie de la fenfluramine. **Vie Medicale au Canada Francais (Quebec). 2(2):141-147, 1973.**

A clinical experiment was conducted at the Servier Laboratory of Montreal, Canada, to demonstrate the toxic and therapeutic reaction patterns of different levels of fenfluramine in mice, rats, cats and rabbits. Results indicate that fenfluramine increases the use of glucose in muscles and diminishes the reserves of fats and lipids in the blood. The potential danger of fenfluramine treatment in cardiovascular humans is stressed. Fenfluramine's alpha beta adrenalin action is demonstrated to be less intense than that of amphetamines in laboratory animals. In a comparison of animal and human pharmacology, fenfluramine differs from amphetamine by the absence of the following effects: group toxicity; increase of motor activity; stimulation of the central nervous system; antagonistic action on barbiturate depression; and sensations of increased mental capacity. 25 references.

152087 Nahorski, S. R. Department of Pharmacology, The University, Sheffield, S10 2TN, England Biochemical effects of the anticonvulsants trimethadione, ethosuximide, and chlordiazepoxide in rat brain. **Journal of Neurochemistry (Oxford). 19(8):1937-1946, 1972.**

The concentration of several metabolites, including glucose, glycogen, hexose phosphates, adenine nucleotides phosphocreatine, amino acids, and some tricanboxylate cycle intermediates, have been estimated in the cerebral tissues of rats treated with anticonvulsant doses of trimethadione, ethosuximide, and chlordiazepoxide. Anticonvulsant administration, in each case, produced an increase in brain glucose, but only trimethadione and ethosuximide resulted in elevated brain/blood glucose rations. It was concluded that the apparent rise in intracellular glucose with the latter drugs may, in part, be the result of a stimulation of glucose transport from the blood into the brain. Anticonvulsant administration was also shown to result in a depression of some tricarboxylate cycle intermediates. The pattern of these metabolite changes was similar to those reported independently in mice treated with anesthetics, and it was therefore concluded that these differences probably reflected a depression in metabolic rate. In general, metabolic alterations indicate the effects rather than the etiology of drug activities, although the fact that many anticonvulsant agents apparently stimulate glucose transfer into the brain implies an association with the membrane stabilization properties of these agents. 30 references. (Author abstract modified)

152098 Baselt, R. C.; Casarett, L. J. Medizinische Chemisches Institut, University of

Bern, Switzerland Biliary and urinary elimination of methadone and its metabolites in the rat. **Biochemical Pharmacology (Oxford). 21(20):2705-2712, 1972.**

The biliary and urinary elimination of 3H-methadone and its metabolites was quantitatively studied after various routes of administration of the drug to male Sprague-Dawley rats. The biliary excretion products consisted largely of the N-demethylated metabolite of methadone, 2-ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine (EDDP), and a highly water soluble compound which is apparently a glucuronide conjugate of hydroxylated derivative of EDDP. Phenobarbital pretreatment of rats was found to decrease the total excretion of EDDP in the bile, possibly through enhancement of another metabolic pathway, and at the same time to decrease the duration of narosis resulting from the administration of methadone. Pretreatment with methadone was observed to greatly enhance the rate of biliary EDDP excretion in the first 4 hrs after methadone administration. 20 references. (Author abstract)

152101 Sollertinskaya, T. N.; Balonov, L. Ya. Lab. sravnitel'noy fiziologii nervnoy sistemy, Inst. evolyutsionnoy fiziol. i biokhim. im. I. M. Sechenova AN SSSR, Leningrad, USSR /Electrophysiological analysis of diencephalo - amygdaloid interrelations./ K elektrofiziologicheskomu analizu dientsefalo-amigdalyarnykh vzaimootnosheniy. **Fiziologicheskiy Zhurnal SSSR Imeni I.M. Sechenova (Leningrad). 58(7):1050-1058, 1972.**

The effect was studied in rabbits of i.v. administration of Librium on the topographic distribution and properties of the neocortical potentials evoked by local low frequency (1 to 15 c/sec) stimulation of different limbic structures (amygdaloid nuclear complex, nonspecific thalamus, and medial hypothalamus). Librium inhibited the neocortical responses evoked by stimulation of different amygdaline nuclei, and it caused significant augmentation of the responses evoked in the neocortex by stimulation of the nonspecific thalamus. Extended range of maximum activity and reduction of the latency of the evoked potentials, with secondary components and after discharges especially intensive, were observed. Librium exerted similar effects on neocortical responses evoked by stimulation of the medial hypothalamus. The findings indicate that the inhibition of the activity of the amygdala and the activation of the nonspecific systems of the thalamus constitute integral elements of the action mechanism of antidepressants. 22 references. (Journal abstract modified)

152142 Reid, John L.; Briant, Robin H.; Dollery, Colin T. Dept. of Clinical Pharmacology, Royal Postgraduate Medical School, London, U.K. Desmethylimipramine and the hypotensive action of clonidine in the rabbit. **Life Sciences (Oxford). 12(10):459-467, 1973.**

The effect of desmethylimipramine (DMI) on the cardiovascular actions of clonidine were studied using male New Zealand White rabbits. Pretreatment with DMI, 2.5mg/kg, i.v.,abolished the hypotensive action of i.v. clonidine, 30microg/kg, in unanesthetized animals. The hypotensive action of intracisternal clonidine, 1microg/kg, was reduced. The magnitude of the acute pressor rise following i.v. noradrenaline was increased after DMI. These results indicate that the hypotensive effect of both i.v. and intracisternal clonidine is reduced by a dose of DMI which inhibits the neuronal uptake of noradrenaline. 18 references. (Author abstract modified)

152162 Fujimoto, James M.; Hakim, Ramses; Zamiatowski, Rosalie. Dept. of Pharmacology, Medical College of Wisconsin, Milwaukee, WI 53233 Inhibition of renal tubular transport of morphine by diethylaminoethanol in the chicken. **Biochemical Pharmacology (Oxford). 21(21):2877-2886, 1972.**

Using the morphine-morphine-3-ethereal sulfate (MES) system in the Sperber preparation of the chicken (unanesthetized Rhode Island Reds), diethylaminoethanol (DEAE) and possibly Lilly 18947 were shown to inhibit the renal tubular transport of morphine. The DEAE induced inhibition led to decreased access of morphine into the renal tubular cell, and excretion of morphine and MES in the urine decreased. The results of countercurrent distribution analyses indicated that the amount of MES relative to morphine did not decrease and may have increased. Therefore, DEAE did not inhibit the metabolism of morphine to MES. Transport of 14C-tetraethylammonium was also inhibited, while transport of 14C-MES was not altered by DEAE. Since Lilly 18947 reduced the apparent tubular excretion fraction of p-aminohippuric acid and of administered 14C-MES, conclusions about the site of action of Lilly 18947 were not as firmly established. DEAE and possibly Lilly 18947 appeared to block morphine transport by virtue of their highly basic proper-

ties. The fact that diethylaminoethanol occurs as a chemical moiety in these, as well as in other compounds, gives rise to the expectation that a number of compounds containing this moiety may show the same type of blocking activity on the organic cation transport system. 11 references. (Author abstract)

152165 Schabort, J. C.; Steyn, M. Dept. van Biochemie, Randse Afrikaanse Universiteit, Johannesburg, South Africa Aflatoxin B1 and phenobarbital inducible aflatoxin-delta2-hydration by rat liver microsomes. **Biochemical Pharmacology (Oxford). 21(21):2931-2933, 1972.**

Aflatoxin-delta2-hydrating activity was investigated in liver microsomes obtained from male Wistar rats. The animals were given either phenobarbital or aflatoxin B1, after which their livers were removed and fractionated. The hydrating activity was localized in the microsomal fractions. Aflatoxin B1 produced an induction of 4.2in the hydrating activity of these fractions when aflatoxin B1 was used as a substrate and an induction of 1.6when aflatoxin G1 was used as the substrate. The comparable induction values for phenobarbital were 3.7and 1.5respectively. A linear relationship between protein concentration and aflatoxin B1-delta2-hydrating activity of the microsomes was found. The optimum pH for the reaction was 7.0and no cofactor requirements were observed. The formation of aflatoxins B2a and G2a from aflatoxins B1 and G1 reached a maximum after 7 hours of incubation and then decreased. This suggests that aflatoxins B2a and G2a may be intermediates in the catabolism of aflatoxins B1 and G1 by rat liver microsomes. With regard to the aflatoxins-4-hydroxylase enzyme system, it is concluded that a specific induction of protein synthesis by aflatoxin B1 occurred. 9 references.

152196 Ford, Donald H. Downstate Medical Center, SUNY, Brooklyn, NY 11203 Effect of narcotic agents on brain metabolism. Progress Report, NIMH Grant MH-210970, 1973, 3 p.

The effect of morphine on the regional accumulation of labeled amino acids into brain protein and various types of neurons was evaluated. Morphine was injected intravenously via indwelling cannulas (left jugular) into unanesthetized animals. A dose of 40mg/kg produced complete anesthesia for 2 hours and catatonic posturing in all the animals immediately upon injection. Morphine injected into Wistar rats produced tolerance within 60 hours for all the animals, with about 90% showing complete tolerance in 48 hours. Total pool size of brain was not affected in animals given a single 40mg/kg injection of morphine. Specific activity for lysine in the treated animals was elevated, while incorporation into the brain protein was depressed. There was a marked decrease in the labeling of plasma protein in male and female animals compared to controls 2 hours following a single injection of morphine. A series of rats were injected with sequentially increasing doses of morphine for 5 days starting with 30mg/kg on day 1 and ending with 110mg/kg on day 5, when the animals were injected with 3H-lysine intravenously. The morphine was injected i.p. 3 or 6 times daily. There was a higher level of 3H-activity in the plasma of morphine treated rats than in controls, while the level of activity in ventral horn motoneurons was significantly depressed in the drug treated animals 30, 45, and 60 minutes after injection of the amino acid. (Author abstract modified)

152199 Costa, E.; Carenzi, A.; Guidotti, A.; Revuelta, A. Laboratory of Preclinical Pharmacology, NIMH, Saint Elizabeths Hospital, Washington, DC Narcotic analgesics and the regulation of neuronal catecholamine stores. (Unpublished paper) St. Elizabeths Hospital, Washington, DC, NIMH, 1973. 2 p.

A measurement is presented of turnover rate of dopamine (DM) in striatum, and norepinephrine (NE) in cerebellum and spinal cord of rats receiving doses of morphine varying from 2.5to 20mg/kg, i.p.,administered acutely or chronically. The analgesic AD80 of morphine administered intraperitoneally was about 20mg/kg, a dose about threshold to cause an increase of the turnover rate of striatal DM. In the same animals, larger doses of morphine failed to change the turnover rate of cerebellar or spinal cord NE. Rats chronically implanted with morphine pellets had no alterations of the catecholamine turnover rate in the three brain areas. When intraperitoneal doses of morphine were injected into rats tolerant to morphine, the turnover rate of striatal DM was selectively increased but the doses required were about four times those needed for normal rats. Naloxone in doses of 32mg/kg i.p. increased the turnover rate of striatal DM; smaller doses (4, 8, and 16mg/kg) were inactive on striatal DM turnover. When a maximal tolerated dose of viminol S2 (20mg/kg i.p.)was injected, the turnover rate of striatal DM or of cerebellar and spinal cord NE was unchanged.

152354 Jakubczak, Leonard F.; Gomer, Frank E. Gerontological Psychology Research Laboratory, VA Hospital, St. Louis, MO 63125 Effects of food deprivation and initial levels on a wheel-running response to methamphetamine. **Bulletin of the Psychonomic Society. 1(5B):343-345, 1973.**

The time course and peak effects of methamphetamine on wheel running activity of food deprived rats and the interaction of degree of food deprivation and predeprivation levels with dosage to influence running activity were investigated. The results indicate that the peak effects of methamphetamine on running activity occur with a dose of 1.50mg/kg, during the first hour after injection, and are additive to the effects of food deprivation and predeprivation running levels. 11 references. (Author abstract modified)

152437 Mason, Christine R.; Cooper, R. M. Department of Psychology, University of Calgary, Calgary, Alberta, Canada A permanent change in convulsive threshold in normal and brain-damaged rats with repeated small doses of pentylenetetrazol. **Epilepsia (Amsterdam). 13:663-674, 1972.**

Changes in the convulsive threshold were studied in normal and brain damaged rats administered repeated small doses of pentylenetetrazol (PTZ). After a few drug administrations myoclonic convulsions began to follow the injections in some of the brain lesioned animals. Tonic - clonic convulsions were observed in some of these animals after further injections. Convulsions occurred with greater frequency in the brain-damaged subjects but did eventually develop in some animals in the normal groups. For both the lesioned and the normal rats, the increase in sensitivity to the drug appeared to be relatively permanent since it did not diminish when the injections were withheld for even as long as three months. For the brain lesioned rats, time of surgery did not prove to be an important variable. The increase in sensitivity to pentylenetetrazol developed just as rapidly in animals started on a series of drug injections one month after surgery as in animals started on PTZ three months after surgery. The data indicates that repeated stimulation of neural tissue leads to a permanent change in the response to the stimulation, a change which may reflect a structural alteration of neurons. 7 references. (Author abstract modified)

152543 Doteuchi, Masami; Costa, E. Laboratory of Preclinical Pharmacology, National Institute of Mental Health, St. Elizabeths Hospital, Washington, DC 20032 Benzodiazepines: a study of the relationship between their effect on catecholamine turnover rate and pentylenetetrazole convulsions. (Unpublished paper). Washington, DC, NIMH, 1973, 1 p.

The relationship between the effect of benzodiazepines on catecholamine turnover rate (TR) and pentylenetetrazole (PT) convulsions was studied. The TR of striatal dopamine (DA) and cerebellar norepinephrine (NE), in rats, and the TR of brain NE in mice were measured from rate of monoamine decline elicited by intravenous alpha-methyl-tyrosine. Cold stress (CS) increased brain NE TR in mice. In rats, the cerebellar NE TR, but not striatal DA TR was increased. Diazepam and desmethyl-diazepam decrease TR of cerebellar NE of CS rats; chlordiazepoxide and RO-5-5807 were inactive. The AD80 against PT convulsion (A.C.)of diazepam and desmethyl-diazepam was not different from the dose that slows down cerebellar NE TR of CS rats. The A.C. action of chlordiazepoxide was marginal, and RO-5-5807 was inactive. Diazepam antagonized PT convulsions and reduced NE TR of CS mice. In mice, RO-5-5807 antagonized PT convulsions and reduced brain NE TR in CS animals. Only diazepam reduced striatal DA TR in CS rats. (Author abstract modified)

152545 Kies, Marian W. National Institute of Mental Health, Bethesda, MD 20014 The relevance of immunologic studies on experimental allergic encephalomyelitis (EAE) to clinical investigations on multiple sclerosis. (Unpublished paper). Rockville, MD, NIMH, 1973, 2 p.

The relevance of immunologic studies on experimental allergic encephalomyelitis (EAE) to clinical investigations on multiple sclerosis (MS) is discussed. Two aspects of research on EAE offer promising leads for investigations on MS: identification of the antigen for diagnostic studies; and development of techniques for immunologic suppression and therapy. Before the investigations can begin, it will be necessary to develop adequate bioassay techniques for the identification of the antigen responsible for central nervous system (CNS) damage, and to test an identified MS antigen for its ability to prevent continued CNS damage in patients. It has been shown that CNS damage in EAE can be terminated by appropriate immunization with myelin basic protein

or related peptides. It is suggested that immunization schedules and techniques for monitoring the immunologic correlates of effective therapy are best developed in experimental animals. (Author abstract modified)

152546 Cheney, D. L.; Trabucchi, M.; Hanin, I.; Costa, E. Laboratory of Preclinical Pharmacology, National Institute of Mental Health, St. Elizabeths Hospital, Washington, DC 20032 Effect of several benzodiazepines on concentrations and specific activities of choline and acetylcholine in mouse brain. (Unpublished paper). Washington, DC, NIMH, 1973, 1 p.

The anticonvulsive activity (ED80 against pentylenetetrazole seizures) of three potent benzodiazepines was correlated with changes in concentrations and specific activitites (SA) of choline (Ch) and acetylcholine (ACh) in mouse brain. Mice were injected with diazepam (D), chlordiazepoxide (C) and RO-5-5807 (R). Diazepam increased the concentration of ACh in mouse brain by 25% to 30% to a new steady state which was constant from 10 minutes to 2 hours; Ch steady state concentrations were not affected. Neither C nor R significantly altered steady state concentrations of Ch or ACh. Specific activity was measured at various times following intravenous injection of phosphoryl(me-14C)choline and 30 minutes following drug injection. The curves of ACh SA were lowered by C, D, and R. The curve of Ch SA was lowered by C and not changed by D or R. Kinetic analyses of these data suggest a possible involvement of the cholinergic system in the pharmacological action of the benzodiazepines. (Author abstract modified)

152549 Carenzi, A.; Costa, E.; Guidotti, A.; Revuelta, A. Laboratory of Preclinical Pharmacology, National Institute of Mental Health, St. Elizabeths Hospital, Washington, DC 20032 Effects of morphine on catecholamine turnover, cyclic 3',5'-AMP concentrations and tyrosine hydroxylase activity in rat tissues. (Unpublished paper). Washington, DC, NIMH, 1973, 1 p.

Effects of morphine on catecholamine turnover, cyclic adenosine 3',5'-monophosphate (cAMP) concentrations and tyrosine hydroxylase activity in rat tissues are discussed. It was found that amphetamine and morphine significantly increase the cAMP concentrations in the striatum. Amphetamine failed to increase the cAMP concentrations in the pituitary, adrenal cortex and medulla while morphine did. It was found that chronic morphine fails to increase the cAMP concentrations in the adrenals when the rats are tolerant to and dependent on morphine. Chronic morphine potentiates the increase of cAMP content of the adrenal medulla elicited by cold. A single dose of morphine induces the tyrosine hydroxylase activity in the adrenal medulla but not in the striatum. Chronic morphine does not induce tyrosine hydroxylase activity in the adrenal medulla. (Author abstract modified)

152664 Palmer, Eugene C. Department of Pharmacology, University of New Mexico School of Medicine, 915 Stanford N. E., Albuquerque, NM 87106 Modification of the CNS cyclic AMP response by drugs. Progress Report, NIMH MH-19893, 1972, 3 p.

The effects of psychotropic drugs on the hormonally induced cyclic 3',5'-adenosine monophosphate (cAMP) response in vitro are reported. Injections of reserpine or 6-hydroxydopamine resulted in an enhanced cAMP response to norepinephrine (NE) in several areas of the rat brain. In the developing rabbit cerebral cortex, a greater cAMP response to histamine was observed at 4 to 8 days postpartum than in the adult. These studies suggest a role for adenycyclase in mechanisms of denervation or preinervation supersensitivity to hormones. Another study revealed increased cAMP levels following a mechanical stimulus (rabbit sciatic nerve crush) in the nerve segment distal to the lesion at a time when proliferation of Schwann cells was observed. In other studies, alpha and beta adrenergic blocking agents as well as LSD, BOL, and serotonin effectively antagonized the cAMP response in NE. In preliminary experiments, urinary cAMP levels were reduced following reserpine and alpha methyl p-tyrosine but not after intracerebral injections of 6-hydroxydopamine. (Author abstract modified)

152870 Seneca, Harry; Henderson, Edward. Columbia-Presbyterian Medical Center, 630 West 168th Street, New York, NY 10032 Enhancement of brain L-dopa concentration with alpha-chymotrypsin. **Journal of the American Geriatrics Society. 21(6):256-258, 1973.**

Enhancement of brain L-dopa concentration with alpha-chymotropsin was studied. Alpha-chymotrypsin (5mg/kg) plus L-dopa (250mg/kg) was administered orally to 15 mice in a series of five feedings during a 26 hour period. There was a 2.35 fold increase in the brain concentration of L-

dopa compared with the increase in five mice given Lrdopa alone. It is suggested that oral administration of alpha-chymotrypsin in combination with L-dopa might be of clinical value in the management of Parkinson's disease. 12 references. (Author abstract modified)

153098 Roffman, Mark; Reddy, Cherjerla; Lal, Harbans. Department of Pharmacology and Toxicology, University of Rhode Island, Kingston, RI 02881 Control of morphine-withdrawal hypothermia by conditional stimuli. **Psychopharmacologia (Berlin). 29(3):197-201, 1973.**

The control of morphine withdrawal hypothermia by conditional stimuli was studied in rats. Ss were given increasing doses of morphine sulfate to cause addiction. Each injection was paired with a bell. After a number of pairings, the bell acquired a conditional stimulus property in that, like morphine, it prevented withdrawal hypothermia during 72 h of withholding morphine. In another group the withdrawal hypothermia was precipitated by withholding morphine injections. The bell reversed that hypothermia. 8 references. (Author abstract)

153103 Nash, Priscilla; Colasanti, Brenda; Khazan, Naim. Department of Pharmacology, Mount Sinai School of Medicine of the City University of New York, New York, NY Long-term effects of morphine on the electroencephalogram and behavior of the rat. **Psychopharmacologia (Berlin). 29(3):271-276, 1973.**

The long-term effects of morphine sulfate on the electroencephalogram and behavior of the rat were studied. Rats were either injected with 10mg/kg of morphine sulfate or with equivalent volumes of isotonic saline. In the saline treated rats, high voltage EEG slow bursts in association with stuporous behavior appeared almost immediately after injection. This phase was followed by continuous EEG and behavioral arousal for another period of 60-90 minutes after which sleep appeared. Administration of the test dose of morphine to the rats having prior morphine exposure resulted in a much shorter initial period of EEG and behavior stupor and a longer secondary phase of EEG and behavioral arousal. The duration of the entire morphine effect as determined by the latency to sleep onset was the same in the saline treated and morphine treated groups of rats. The results support the assumption that long-term alterations in the function of the CNS occur not only after morphine addiction but also after only exposure to morphine. 13 references. (Author abstract modified)

153171 Galosy, R. A.; Howard, J. L.; Gaebelein, C. J.; Obrist, P. A. University of North Carolina School of Medicine, Chapel Hill, NC Neuromuscular blocking drugs and the heart rate response to direct preganglionic stimulation of the sympathetics and parasympathetics in the cat. **Psychophysiology. 10(2):196-197, 1973.**

At the twelfth annual meeting of the Society for Psychophysiological Research, a study of neuromuscalar blocking drugs and the heartrate response of cats to direct preganglionic stimulation of the sympathelic and parasympathetic cardiac nerves cat was reported. Saline, d-tubocurarine chloride, succinylcholine, and dimethyl d-tubocurarine iodide were applied at three levels of neuromuscular blockage. Results show no drug effect on the heartrate response to sympathetic stimulation at any level of blockade. The heartrate response to vagal stimulation, however, was influenced differntially by drugs at maximum blocking levels with d-tubocurarine chloride showing the greatest blockade effect. Level of blockade response showed no predrug effect, complete suppression of electromyogram at maximum block, and differential degrees of recovery. Results suggest that these neuromuscular blocking agents differentially blocked responses at the autonomic ganglia with d-tubocurarine being the most potent vagal blocking agent. (Author abstract modified)

153202 Williams, R. B.; Eichelman, B.; Ng, L. K. National Institute of Mental Health, Rockville, MD Pattern of sympathetic nervous system (SNS) discharge and the blood pressure response to footshock in the rat. **Psychophysiology. 10(2):202, 1973.**

At the twelfth annual meeting of the Society for Psychophysiological Research, the pattern of sympathetic nervous system (SNS) discharge and the blood pressure response to footshock in the rat was reported. Rats were either adrenalectomized, administered saline, or given 6-hydroxydopamine, a drug which selectively destroys peripheral sympathetic nerve endings while leaving adrenal medullary function intact. The saline injected control animals showed a significant blood pressure (BP) decrease after shock in pairs and a nonsignificant BP increase after shock alone. In contrast, 6-hydroxydopamine treated rats showed a significant BP increase after shock

alone or in pairs. Adrenalectomized rats showed a significant BP decrease after shock in either paradigm. Thus, intact peripheral sympathetic nerve endings seem necessary for the occurrence of a BP fall after shock induced fighting, while intact adrenal function seems necessary for a BP rise after shock alone. (Author abstract modified)

153571 Amit, Zalman; Corcoran, Michael Edward; Charness, Michael E.; Shizgal, Peter. Kinsmen Laboratory of Neurological Research, Faculty of Medicine, University of British Columbia, Vancouver 8, Canada Intake of diazepam and hashish by alcohol preferring rats deprived of alcohol. **Physiology & Behavior. 10(3):523-527, 1973.**

The intake of diazepam and hashish by alcohol preferring rats deprived of alcohol was studied. Male Wistar rats that had acquired a preference over water for concentrated solutions of alcohol following a schedule of repeated electrical stimulation of the lateral hypothalamus were deprived of alcohol for a 12 day period. During this withdrawal period the rats displayed a short-term cross-preference for diazepam or hashish. While intake of hashish dropped to control levels after the first test session, the intake of diazepam remained elevated for the duration of testing. It is suggested that the enhanced intake of diazepam reflects an interaction between the effects of hypothalamic stimulation with the effects of prolonged consumption of alcohol. 14 references. (Author abstract)

154261 Ng, Lorenz K. Y.; Lamprecht, Friedhelm; Williams, Redford B.; Kopin, Irwin J. Laboratory of Clinical Science, National Institute of Mental Health, Bethesda, MD 20014 Delta9-tetrahydrocannabinol and ethanol: differential effects on sympathetic activity in differing environmental setting. **Science. 180(4093):1368-1369, 1973.**

Serum dopamine beta-hydroxylase activity, a useful biochemical index of peripheral sympathetic nervous activity, was measured in rats treated with delta9-tetrahydrocannabinol or ethanol or both substances. After 7 days of treatment with either substance, serum dopamine beta-hydroxylase activity decreased significantly. Combined treatment with both agents enhanced the effects of each given alone. In rats subjected to immobilization stress, the treatment with delta9-tetrahydrocannabinol appeared to potentiate the stress induced increase in serum enzyme activity. Treatment with ethanol, with or without delta9-tetrahydrocannabinol, effectively blocked this increase in enzyme activity. Results indicate that both substances have significant effects on the sympathetic nervous system which are critically influenced by environmental setting. 6 references. (Author abstract modified)

154364 Holz, Ronald; Deguchi, Takeo; Axelrod, Julius. Laboratory of Clinical Science, National Institute of Mental Health, Bethesda, MD 20014 Stimulation of serotonin N-acetyltransferase in pineal organ culture by drugs. (Unpublished paper). Bethesda MD, NIMH, 1973, 19 p.

A study on cultured pineals is presented which demonstrates that cocaine, procaine, pheniprazine, veratridine and the absence of potassium stimulate serotonin N-acetyltransferase (MAT) in innervated but not in denervated pineals. These effects can be inhibited by beta-adrenergic blocker 1-propranolol. It is concluded that these drugs and potassium act on nerve terminals to cause an accumulation of extraneuronal norepinephrine that stimulates via a beta-receptor, serotonin NAT. The ability of veratridine to stimulate NAT and to inhibit norepinephrine uptake was reversed by tetrodotoxin, a blocker of sodium permeability in excitable tissue; thus, veratridine acts by increasing sodium permeability in nerve terminals. This adds support to the theory that catecholamine uptake is a process that requires a sodium gradient across the nerve terminal membrane. 20 references.

154368 Deguchi, Takeo; Axelrod, Julius. Tokyo Metropolitan Institute for Neuroscience, 2-6 Musashidai, Fuchu-City, Tokyo, Japan Role of beta-adrenergic receptor in the control of serotonin N-acetyltransferase in rat pineal. (Unpublished paper). Bethesda, MD, NIMH, 1973, 11 p.

Six studies in the investigation of the role of beta-adrenergic receptor in the control of serotonin N-acetyltransferase (NAT) in the rat pineal are given: 1) the control of circadian change of NAT in pineal; 2) the induction of NAT by adrenergic drugs during daytime; 3) the relation between cyclic adenosine 3',5'-monophosphate (AMP) and NAT; 4-5) the superinduction of NAT after depletion of norepinephrine, and suppression of superinduction of NAT; 6) the enhanced elevation of cyclic AMP in denervated or reserpine treated pineals. 20 references.

154372 Palmer, G. C.; Schmidt, M. J.; Robison, G. A. Department of Pharmacology, University of New Mexico School of Medicine, Albuquerque, NM 87106 Development and characteristics of the histamine-induced accumulation of cyclic AMP in the rabbit cerebral cortex. (Unpublished paper). Albuquerque, University of New Mexico, 1973. 12 p.

A study which characterizes the histamine induced accumulation of cyclic adenosine 3',5'-monophosphate (AMP) in the adult rabbit cerebral cortex and examines the response to histamine at various stages during the course of brain development is presented. Results show: histamine produced a detectable rise in cyclic AMP, while the antihistamine, tripelennamine, inhibited the response of histamine in a dose related manner; the first detectable increase of cyclic AMP in response to histamine occurred at fetal day 25, and from day 28 to birth the response was four to five fold; and a maximum (10 fold) response was observed at 4 to 8 days postpartum and by 20 days of age the response had decreased to adult levels. 30 references. (Author abstract modified)

154613 Crow, Lowell T.; Thompson, James R. Western Washington State College, Bellingham, WA Pyrazole diuresis in rats with and without alcohol. **Psychological Reports. 32(3):1209-1210, 1973.**

Water intake and urinary output were observed in 20 rats treated with pyrazole and/or alcohol combinations. Results indicate water losses after pyrazole, but no pyrazole with alcohol interaction effect. 7 references. (Author abstract)

154959 Taber, C. A. Deptl. of Pharmacology, Univ. of Texas Dental Branch, Houston, TX The influence of p-chlorophenylalanine on the effect of 5-hydroxytryptophan on spinal synaptic activity in chronic spinal and reserpinized cats. **Texas Reports on Biology and Medicine. 31(1):105, 1973.**

Reserpinized and chronic spinal cats were utilized to test the hypothesis that the effect of 5-hydroxytryptophan (5-HTP) on the monosynaptic reflex (MSR) is mediated by 5-hydroxytryptamine (5-HT). In the acute spinal cat, the 5-HT depletor p-chlorophenylalanine (pCPA) blocks the typical facilitatory effect of 5-HTP on the MSR while reserpine potentiates this effect. Cats received two injections of pCPA 24 hours apart and reserpine 2 hours after the second pCPA injection. The animals were spinalized and prepared for reflex recording 48 hours after the initial dose of pCPA. The injection of 5-HTP revealed that reserpine had clearly prevented the blockade normally produced by pCPA. Similarly, chronic spinalization (21 days) reversed the usual pCPA blockade of the effect of 5-HTP on the MSR. The reserpine reversal may result from a blockade of granular uptake and the subsequent overflow of newly formed 5-HT onto subsynaptic receptors. The failure of pCPA to block the effect of 5-HTP in the chronic spinal cat suggests that this blockade is dependent upon intact bulbospinal terminals and thus, the effect of 5-HTP on the MSR may well be mediated by 5-HT formed in such terminals. (Journal abstract)

154960 Trippodo, N. C.; Traber, D. L. Depts. of Anesthesiology and Physiology, Univ. of Texas Med. Branch, Galveston, TX Pharmacological sympathectomy using 6-hydroxydopamine. **Texas Reports on Biology and Medicine. 31(1):118-119, 1973.**

A dosage regimen of 6-hydroxydopamine (6-OHDA) that could be used to completely sympathectomize dogs without causing other adverse effects was established. Subjects were 10 adult dogs of either sex. To eliminate the reflexive release of catecholamines from the adrenal medulla, the glands were denervated by bilateral transection of the greater splanchnic nerves. Beginning on the 3rd day after surgery, five dogs were given four injections of 6-OHDA for 3 successive days as follows: 2.5, 5 and 10 mg=kg. The five dogs that served as controls were given four injections of solvent only. After receiving the complete dosage, the 6-OHDA treated dogs did not appear to suffer any ill effects other than slight weight losses and diarrhea. It is concluded that this dosage regimen of 6-OHDA administered to dogs will greatly impair the function of the sympathetic nervous system without causing other adverse effects, but for a more complete sympathectomy larger dosages should be used. (Journal abstract modified)

154970 Fujimori, Masamoto; Trusty, Dewey M.; Himwich, Harold E. Thudichum Psychiatric Research Laboratory, Galesburg State Research Hospital, Galesburg, IL 61401 Delta9-tetrahydrocannabinol: electroencephalographic changes and autonomic responses in the rabbit. **Life Sciences. 12(12):553-563, 1973.**

The effect of delta9-tetrahydrocannabinol (THC) on electroencephalographic changes and autonomic responses were studied in the rabbit.

The intravenous administration of THC caused marked EEG synchronization, an increase in the amplitude of slow waves and the appearance of either single or multiple spikes mainly in the motor and limbic cortices. A rapid fall of blood pressure and slowing of the heartrate were evoked simultaneously. The EEG changes and autonomic responses induced by THC were dose dependent. Results suggest that in its hallucinogenic activity THC may have a mechanism of action different from that of other psychotomimetics, such as LSD-25, mescaline and DOM. 23 references. (Author abstract)

155210 Friedman, Eitan; Gershon, Samuel. Neuropsychopharmacology Research Unit, New York University Medical Center, 550 First Avenue, New York, NY 10016 Effect of lithium on brain dopamine. **Nature (London). 243(5409):520-521, 1973.**

The effect of chronic lithium chloride treatment on dopamine synthesis in striatal rat brain slices is reported. The inhibition of dopamine synthesis by lithium ion seems to require chronic treatment. High lithium concentrations produced by either an acute injection or by in vitro addition of lithium ion are insufficient to inhibit synthesis. These conclusions correlate with clinical observations that lithium's antimanic action requires 1 to 2 weeks of daily medication. The results agree with the observed decrease of dopamine excretion in manic patients undergoing lithium treatment. It is suggested that the inhibition of striatal dopamine synthesis may play some part in the psychomotor action of lithium in mania, or this element may exert fundamental action on the disorder itself. 15 references.

155221 Shah, Nandkumar S.; Neely, Anne E. Ensor Research Laboratory, William S. Hall Psychiatric Institute, Columbia, SC 29202 Drug interaction -- effect of chlorpromazine on the disposition of 8-14C-mescaline in fetal and maternal brain and liver in pregnant mouse. **Biochemical Pharmacology (Oxford). 22(12):1535-1538, 1973.**

The effects of different doses of chlorpromazine treatment on the disposition of injected labeled mescaline in maternal and fetal brain and liver were studied. Pregnant mice on approximately days 15 to 18 of gestation were injected intraperitoneally with chlorpromazine hydrochloride in 0.5ml saline; control animals were given the same volume of saline. Thirty minutes later, the animals were given 8-14C-mescaline hydrochloride. The radioactivity in fetal and maternal brain and liver was extracted and unchanged mescaline was isolated. In the saline treated group, the levels of mescaline in the fetal brain were 308% of the maternal brain. In the liver, the level in fetal tissues was 86% of that of the mother. Pretreatment with chlorpromazine resulted in marked accumulation of mescaline in both maternal and fetal brain as well as in the liver. Under the experimental condition, chlorpromazine markedly blocked the disappearance of mescaline from the fetal and maternal brain and liver. Findings are potentially significant in view of the interaction between an antipsychotic agent and a hallucinogen. 16 references.

155222 Samsonova, Maya L.; Lapin, Izyaslav P. Bekhterev Psychoneurological Research Institute, Leningrad, c/o Bekhtereva 3, Leningrad C-19, U.S.S.R. Antidepressants and liver tryptophan pyrrolase activity. **Biochemical Pharmacology (Oxford). 22(12):1499-1507, 1973.**

The effects of four classes of drugs on the tryptophan pyrrolase activity in the liver of rats was studied. Tricyclic antidepressants diminished liver tryptophan pyrrolase activity. Neuroleptics and anticholinergics, used for comparison, did not change the enzyme activity. No effects of imipramine were observed in vitro nor in adrenalectomized animals. Imipramine did not influence tryptophan or hydrocortisone induction of tryptophan pyrrolase. Antidepressants in doses which lower the enzyme activity also lowered blood plasma concentration of 11-hydroxycorticosteroids. This may be responsible for inhibition of tryptophan pyrrolase activity by antidepressants. Inhibitors of monoamine oxidase did not decrease liver tryptophan pyrrolase activity but suppressed tryptophan induction of this enzyme. Possible relations between reduction by antidepressants of liver tryptophan pyrrolase activity and enhanced serotonin synthesis in the central nervous system and the thymoanaleptic effect are discussed. 15 references. (Author abstract modified)

155242 Karczmar, A. G. Loyola University Medical School, Maywood, IL Neurochemical and behavioral bases of ethological aggression. **Psychopharmacology Bulletin. 9(3):16-17, 1973.**

A comparison of certain laboratory tests of aggression in various strains and genera of small rodents with respect to an ethological type of aggression is presented. Behavioral tests using a

comparative phylogenetic and taxonomic approach were used to ascertain whether there is a behavioral syndrome related to aggression, and to uncover the relationship of the behavioral and aggressive syndrome to neurochemical characteristics as well as to brain excitability. 4 references.

155244 Everett, Guy M. Department of Pharmacology, University of California, San Francisco, CA Genetic program of brain biogenic amines and aggressive behavior. **Psychopharmacology Bulletin. 9(3):18, 1973.**

Genetic factors and the biogenic amines dopamine (DA), norepinephrine (NE), and serotonin (5HT) and their role in aggressive behavior in mice is reported. Changes in brain amines and behavior with age may be relevant to problems of geriatric behavior in man.

155246 McKenzie, G. M. Burroughs Wellcome Company, Research Triangle Park, NC Apomorphine-induced aggression: characteristics, pharmacological intervention, and site of action. **Psychopharmacology Bulletin. 9(3):19-21, 1973.**

Characteristics of a morphine induced aggression in rats and the effects of various classes of drugs and their ability to selectively block either the aggressive or the stereotyped behavior induced by apomorphine are discussed. It is noted that an interruption in the raphe nuclei pathways containing the cell bodies of serotonergic neurons could be responsible for the antiaggression effect. 5 references.

155252 Plotnikoff, N. P.; Prange, A. J., Jr.; Breese, G. R.; Anderson, M. S.; Wilson, I. C. Abbott Laboratories, Scientific Division, North Chicago, IL TRH: enhancement of DOPA activity in normal intact, hypophysectomized and thyroidectomized animals. **Psychopharmacology Bulletin. 9(3):27, 1973.**

Antidepressant activity of TRH (thyrotropin releasing hormone) is discussed. TRH was found to potentiate the behavioral effects in the mouse DOPA potentiation test. Additional studies demonstrated that TRH alone, without imipramine, potentiated the behavioral effects of DOPA and 5-hydroxytryptophan in mice. Since potentiation of the behavioral effects of DOPA by TRH was found to occur in hypophysectomized mice, as well as in normal mice, it can be concluded that the phenomenon is independent of TSH release from the pituitary. In addition, TRH was found to potentiate the behavioral effects of DOPA in thyroidectomized rats, indicating that the behavior is independent of thyroxine release from the thyroid gland. 2 references.

155253 Breese, G. R.; Prange, A. J., Jr.; Lipton, M. A. Department of Psychiatry, University of North Carolina School of Medicine, Chapel Hill, NC TRH and thyroid hormones: DOPA response and DOPA metabolism. **Psychopharmacology Bulletin. 9(3):27-28, 1973.**

Effects of thyroid state on imipramine metabolism was studied by administering imipramine to thyroidectomized, hypophysectomized, T3 (L-triiodothyronine) treated, and euthyroid - control rats in an attempt to clarify the interaction of T3 and imipramine. TRH (thyrotropin releasing hormone) is found to potentiate the actions of DOPA, without enhancing the toxicity of imipramine, in contrast to T3. Both are found to cause a greater rise in brain dopamine than found in control rats following the administration of DOPA.

155259 Prange, A. J., Jr.; Park, S.; Happy, J. M. Department of Psychiatry, University of North Carolina School of Medicine, Chapel Hill, NC The effects of thyroid state on the action and disposition of phenothiazines in rodents. **Psychopharmacology Bulletin. 9(3):33, 1973.**

The effect of thyroid feeding on mice given doses of chlorpromazine, perphenazine, and thioridazine is discussed. The phenothiazines were more lethal according to duration of thyroid feeding, and shortened the survival in a sealed environment of both thyroid-fed and control mice.

155260 Mandell, Arnold J. Department of Psychiatry, University of California at San Diego, La Jolla, CA Thyroid hormones and catecholamine macromolecular mechanisms in CNS. **Psychopharmacology Bulletin. 9(3):33-34, 1973.**

The relationship between thyroid hormone and the action of catecholamines in adrenergic pathways in the brain was explored in rats. In order to study the relationship, the effect of thyroid state was examined on 1) spontaneous behavioral activity, 2) specific activity of the probable rate limiting enzyme in the biosynthesis of norepinephrine (NE) in the midbrain, tyrosine hydroxylase (TYOH), and 3) behavioral response

to intraventricular infusion of NE. 6 references. (Author abstract modified)

155493 Fuller, Ray W.; Parli, C. John, Molloy, Bryan B. Lilly Research Laboratories, Eli Lilly & Company, Indianapolis, IN Metabolism of amphetamine and beta,beta-difluoroamphetamine in phenobarbital-treated rats. **Biochemical Pharmacology. 22(16):2059-2061, 1973.**

The metabolism of amphetamine and beta,beta-difluoroamphetamine in phenobarbital treated rats is investigated. It was reported that the rate of deamination of difluoroamphetamine (and amphetamine) in vitro by rat liver microsomes is increased after phenobarbital treatment and that the half life of beta,beta-difluoroamphetamine (but not amphetamine) in tissues is strikingly reduced in phenobarbital treated rats. The present findings support earlier evidence that the major metabolic route for beta,beta-difluoroamphetamine in rats is by a different pathway (deamination) than that for amphetamine (para-hydroxylation). 6 references.

155494 Hrdina, Pavel D.; Ling, George M. Dept. of Pharmacology, Univ. of Ottawa, Ottawa, Canada Effect of desmethylimipramine on acetylcholine uptake by slices of rat brain cortex. **Biochemical Pharmacology. 22(18):2062-2065, 1973.**

The effect of desmethylimipramine (DMI) on acetylcholine (ACh) uptake by slices of rat brain cortex is investigated. Results confirm the recent observation that brain cortex slices incubated in the presence of a suitable cholinesterase inhibitor take up ACh by an active process and demonstrate that the uptake of C14-ACh by slices of rat brain cortex is competitively inhibited by DMI. 7 references.

155903 Corrodi, H.; Fuxe, K.; Hokfelt, T.; Lidbrink, P.; Ungerstedt, U. Dept. of Pharmacology, Univ. of Goteborg, Goteborg, Sweden Effect of ergot drugs on central catecholamine neurons: evidence for a stimulation of central dopamine neurons. **Journal of Pharmacy and Pharmacology (London). 25(5):409-412, 1973.**

Chemical and functional studies on rats made to evaluate the effects of ergocornine and 2-Br-alpha-ergocryptine (CB154) on dopamine and noradrenaline mechanism in the rat are reported. Results underline the importance of actions on dopamine synapses in the neostriatum and limbic forebrain. The main action appears to be direct dopamine receptor stimulation of long duration. Ergocornine and expecially CB154 may prove to be of value in the treatment of Parkinson's disease. 17 references.

155906 Clark, W. G.; Oldendorf, W. H.; Dewhurst, W. G. Psychopharmacology Research Laboratory, VA Hospital, Sepulveda, CA 91343 Blood-brain barrier to carbidopa (MK-486) and Ro 4-4602, peripheral dopa decarboxylase inhibitors. **Journal of Pharmacy and Pharmacology (London). 25(5):416-418, 1973.**

A direct measure of the ability of L-alpha-methyldopa hydrazine and N1-(DL-seryl)-N2-(2,3,4-trihydroxybenzyl) hydrazine to cross the blood - brain barrier in rats is reported. The oil water partition coefficient method used is described. Results indicate that both substances do not cross the blood - brain barrier. They have been used to advantage in patients with Parkinson's disease receiving L-dopa as they reduce peripheral loss of L-dopa and reduce the doses of L-dopa needed for therapeutic effects. 10 references.

155907 Hajos, Gy. T.; Garattini, S. Istituto di Recerche Farmacologiche, 'Mario Negri' - Via Eritrea, 62 - 20157 Milan, Italy A note of the effect of (+)- and (-)-amphetamine on lipid metabolism. **Journal of Pharmacy and Pharmacology (London). 25(5):418-419, 1973.**

The effects of (+)- and (-)-amphetamine are compared for their effects on free fatty acids (FFA) and triglycerides, on triglyceride absorption, and on body temperature, intestinal transit and food intake in rats. Both isomers reduced food intake, inhibited the transit of a photoluminescent pigment through the small intestine and caused pronounced elevation in plasma FFA. Isomers in doses having only a mild effect on plasma triglycerides in normal rats, strongly inhibited the rise of plasma triglycerides elicited by olive oil gavage. The reduced intestinal motility observed after administration of amphetamine and amphetamine like drugs might be only partially responsible for the inhibition of triglyceride absorption. Further study is suggested. 6 references.

155909 Wolf, Harold, H.; Bunce, Mari E. Division of Pharmacology, College of Pharmacy, Ohio State Univ., Columbus, OH 43210 Hyperthermia and the amphetamine aggregation phenomenon: absence of a causal relation. **Journal of Pharmacy and Pharmacology (London). 25(5):425-427, 1973.**

A reexamination of the relation between amphetamine induced hyperthermia and group toxicity is reported using mice subjected to peripheral sympathectomy. Both isomers of amphetamine were more toxic in grouped vs. isolated mice. Results support the concept that peripheral release of catecholamines plays an important role in amphetamine aggregation toxicity and are in agreement with the observation that both isomers of amphetamine stimulate adrenoceptors indirectly by releasing endogeneous catecholamines. Both isomers can produce hyperthermia. 6-Hydroxy-dopamine did not significantly alter thermoregulatory responses at room temperature. The aggregation phenomenon produced by amphetamine isomers is not causally related to their ability to induce hyperthermia. 22 references.

156107 Siggins, George R.; Forman, David S. William A. White Building, St. Elizabeths Hospital, Washington, DC 20032 6-Aminodopamine and 6-hydroxydopamine: similar degenerative effects on peripheral adrenergic nerves. (Unpublished paper). Washington, DC, NIMH, 1973. 29 p.

A 6-hydroxydopamine analogue, 6-aminodopamine (6-ADA), was compared with 6-hydroxydopamine (6-OHDA) as a potential agent for chemical sympathectomy, using the adrenergic terminals innervating arterioles of the frog retrolingual membrane as a test system. The results suggest that 6-ADA selectively destroys peripheral adrenergic nerves much like 6-OHDA, proving an additional marker for the ultrastructural identification of adrenergic nerves. Their analogous structures suggest a similar metabolic mechanism for destruction of adrenergic nerves. 26 references. (Author abstract modified)

156321 Sprague, Rosa A.; Rosenkrantz, Harris; Braude, Monique G. Mason Research Institute, Worcester, MA Cannabinoid effects on liver glycogen stores. **Life Sciences. 12(9):409-416, 1973.**

A study was conducted to ascertain the influence of delta9-tetrahydrocannabinol (delta9-THC) on liver glycogen levels in monkeys, rats and rabbits. Liver glycogen content was determined after administration of delta9-THC to monkeys, i.v.,for 28 days, to rabbits, s.c.,for 28 days, and to rats by a single inhalation exposure. Delta9-THC doses above 4mg/kg depressed liver glycogen stores by 60 to 75% in monkeys with no change in blood glucose. In the rabbit, 15 to 153mg/kg initiated a 45 to 72% dose related decline in liver glycogen. Rats subjected to inhalation of 34 to 100mg/kg responded with a dose related 20 to 26% decrease in liver glycogen within 24 hours, which intensified to a 35 to 74% fall 7 days postexposure. It is suggested that depleted liver glycogen stores arise from both a nonspecific stress and the necessity for oxidizable substrate for detoxification of cannabinoid. 28 references. (Author abstract modified)

156322 Stolk, Jon M.; Hanlon, David P. Departments of Pharmacology, Psychiatry and Biochemistry, Dartmouth Medical School, Hanover, NH 03755 Inhibition of brain dopamine-beta-hydroxylase activity by methimazole. **Life Sciences. 12(9):417-423, 1973.**

The inhibitory effect of methimazole on brain dopamine-beta-hydroxylase activity was studied in male Long-Evans rats in vivo. Rat brain dopamine-beta-hydroxylase (D beta H) activity was estimated using graded doses of 3H-dopamine injected intracisternally. Animals treated acutely with methimazole, 5 to 50mg/kg, displayed a dose related decrease in the levels of 3H-norepinephrine formed from 3H-dopamine. The ID50 of methimazole was 10mg/kg. The duration of D beta H inhibition, which was accompanied by a decrease in endogenous norepinephrine concentration, was between 6 and 12 following a single acute 10mg/kg dose of methimazole. Methimazole's effect on D beta H is thought to be mediated via its ability to chelate copper. 14 references. (Author abstract modified)

156638 Peng, C. H. Lee. Dept. of Biochem., Univ. of Hong Kong, Sassoon Rd., Hong Kong Glycogen content and phosphorylase activity in liver and skeletal muscle of normal and chronically morphinized rats. **Biochemical Pharmacology (Oxford). 22(10):1141-1145, 1973.**

The glycogen content and phosphorylase activity of the livers, hindlimb muscles, and diaphragms of normal and chronically morphinized female rats were determined. There was a sharp decline in the glycogen content of the liver, but not of the skeletal muscle, in the chronically morphinized rats. Glycogen phosphorylase a and b were reduced in both the liver and skeletal muscle. There was a relative increase in the proportion of phosphorylase-b in the tissues of the morphinized animals. The increase in the ratio of phosphorylase-b to phosphorylase-a may be related to the inhibition of hormonal action and the

activation of adenyl cyclase caused by the drug. 22 references. (Author abstract)

156639 Jovic, Radovan C.; Zupanc, Stefan. Inst. of Toxicology, Military Med. Academy, 11000 Belgrade, Pasterova 2, Yugoslavia Inhibition of stimulated cerebral respiration in vitro and oxygen consumption in vivo in rats treated by cholinolytic drugs. **Biochemical Pharmacology (Oxford). 22(10):1189-1194, 1973.**

The effects of different doses of N-methyl-3-piperidyl benzilate hydrochloride (JB-336/3), N-methyl-4-piperidyl benzilate hydrochloride (JB-336/4), and 3-quinuclidinyl benzilate hydrochloride (HNB-3) in vivo and at a range of concentrations in vitro on oxygen consumption in vivo and on tissue respiration of rat cerebral cortex and medulla oblongata in vitro were studied. The three cholinolytic drugs were shown to block the stimulated respiration of the rat cerebral cortex and medulla oblongata (at a concentration of 0.0005 M) without demonstrable effects on unstimulated tissue. Qualitatively similar effects were observed in vivo. A relationship between the central cholinergic synapses and energy metabolism in excitable tissues is suggested. 15 references. (Author abstract)

156640 Gubitz, Richard H.; Akera, Tai; Brody, Theodore M. Dept. of Pharmacology, Michigan State Univ., East Lansing, MI 48823 Comparative effects of substituted phenothiazines and their free radicals on (Na+,K+)-activated adenosine triphosphatase. **Biochemical Pharmacology (Oxford). 22(10):1229-1235, 1973.**

The inhibitory effects of free radicals of various substituted phenothiazines on (Na+,K+) activated ATPase (Mg2+ dependent, (NA+,K+) activated ATP phosphohydrolase; EC 3.6.1.3) were studied in vitro. Enzyme preparations were obtained from rat brain microsomal fractions after deoxycholic acid and NaI treatments. Free radicals were produced by either ultraviolet (253.7nm) irradiation or enzymatic oxidation with peroxidase. Without enzymatic or photooxidation, the phenothiazine derivatives failed to inhibit (Na+,K+) activated ATPase activity significantly. Photooxidative intermediates of thioridazine, trifluprомazine, and trifluoperazine were potent inhibitors of (Na+,K+) activated ATPase activity. Those from chlorpromazine, perphenazine, and promazine were less potent. Peroxidase - hydrogen peroxide treatment of promazine, thioridazine, perphenazine, and chlorpromazine produced free radical intermediates which significantly inhibited (Na+,K+) activated ATPase activity. The same treatment of trifluprомazine and trifluoperazine, however, failed to produce detectable amounts of free radical intermediates. Concomitantly, no inhibition of (Na+,K+) activated ATPase activity was observed under these conditions. It is concluded that free radical intermediates of various substituted phenothiazines are differentially potent inhibitors of (Na+,K+) activated ATPase, and that the formation of free radicals from substituted phenothiazines is dependent upon the oxidixing conditions and nature of substituent groups. 15 references. (Author abstract)

156644 Koda, Leonard Y.; Gibb, James W. Dept. of Pharmacology, College of Medicine, Univ. of UT, Salt Lake City, UT Adrenal and striatal tyrosine hydroxylase activity after methamphetamine. **Journal of Pharmacology and Experimental Therapeutics. 185(1):42-48, 1973.**

The effects of methamphetamine induced stress on the activity of tyrosine hydroxylase (TH) within the adrenals and striatum were investigated, along with the effects of the drug on the striatal dopamine and norepinephrine levels. The subjects were adult male Sprague-Dawley rats. Methamphetamine (15mg/kg) administered every 6 hours produced a significant increase in adrenal TH activity. The enzyme activity in the corpus striatum showed a biphasic response; it initially decreased, reached a nadir after 36 hours, and progressively returned to normal after about 48 hours. The recovery of TH activity may be a manifestation of drug tolerance. Cold stress increased the adrenal enzyme activity, but had no effect on striatal TH activity. The striatal dopamine levels followed the decrease in TH activity, but failed to increase as the enzyme activity recovered. The striatal norepinephrine levels increased initially and did not reflect TH activity. 27 references. (Author abstract modified)

156751 Tonge, Sally R. School of Pharmacy, Liverpool Polytechnic, Byrom St., Liverpool, England Neurochemical teratology: 5-hydroxyindole concentrations in discrete areas of rat brain after the pre- and neonatal administration of phencyclidine and imipramine. **Life Sciences. 12(11):481-486, 1973.**

The permanent effects of prenatally and neonatally administered phencyclidine and imipramine on the 5-hydroxyindole concentrations

of the rat brain were determined in male Wistar rats. It was found that phencyclidine treatment significantly elevated the concentrations of 5-hydroxytryptamine in the striatum, thalamus, midbrain, pons/medulla, and amygdala; these changes were still apparent 9 months following the cessation of drug treatment. Imipramine did not significantly affect the 5-hydroxytryptamine concentrations in any of the brain areas examined, and no gross behavioral changes were observed in any of the drug treated animals. 9 references.

156758 Bevan, P.; Bradshaw, C. M.; Roberts, M. H. T.; Szabadi, E. Dept. of Psychiatry, Univ. of Edinburgh, Morningside Park, Edinburgh EH10 5HF, U.K. The excitation of neurons by noradrenaline. **Journal of Pharmacy and Pharmacology (London). 25(4):309-314, 1973.**

The response of single cortical neurons to microelectrophoretically applied noradrenaline at pH 3.1and 5.0and to hydrogen ions were compared in the halothane anesthetized cat. Of 16 neurons sensitive to noradrenaline, 13 were excited and three were depressed by noradrenaline at both pH values, whereas hydrogen ions released from an HCl solution did not affect the firing rate. Dose - response studies showed that noradrenaline at pH 3.1was more potent than at pH 5.0. It is concluded that excitatory responses to noradrenaline are not artifacts and that the adjustment of the pH of noradrenaline solutions with NaOH should be avoided. 21 references. (Author abstract)

156759 Jori, A.; Dolfini, E.; Tognoni, G.; Garattini, S. Istituto di Ricerche Farmacologiche 'Mario Negri', Via Eritrea 62, 20157, Milan, Italy Differential effects of amphetamine, fenfluramine and norfenfluramine stereoisomers on the increase of striatum homovanillic acid in rats. **Journal of Pharmacy and Pharmacology (London). 25(4):315-318, 1973.**

The effects of the (-)- and (+)-isomers of amphetamine, fenfluramine, and norfenfluramine on the levels of homovanillic acid (HVA) in the rat striatum were investigated in female Charles river rats. (+)-Amphetamine was found to be more effective in increasing the striatal concentration of HVA than was the (-)-isomer, while the (-)-isomers of fenfluramine and norfenfluramine are more active than their (+)-isomers. The concentrations of the drugs in the striatum do not explain the differences observed between the isomers on striatal HVA. Fenfluramine does not appear to act on striatum HVA through the formation of norfenfluramine. 27 references. (Author abstract modified)

156765 Anden, Nils-Erik; Stock, Gunter. Dept. of Pharmacology, Univ. of Goteborg, Fack, S-400 33 Goteborg 33, Sweden Effect of clozapine on the turnover of dopamine in the corpus striatum and in the limbic system. **Journal of Pharmacy and Pharmacology (London). 25(4):346-348, 1973.**

The effects of the antipsychotic drug clozapine (which induces no clearcut extrapyramidal side-effects) on the turnover of dopamine in the corpus striatum and limbic system were studied in adult white rabbits. The animals were injected with varying doses of clozapine or haloperidol at various intervals before their deaths. Clozapine (5mg/kg, i.v.)produced an increase in the concentrations of homovanillic acid (HVA), the principal metabolite of dopamine, in both the corpus striatum; the maximal effect was seen after 4 hours, with the values having returned to normal after 6 hours. No obvious changes in the dopamine concentrations of either brain region were noted. While clozapine elevated the HVA concentrations in the limbic system to a greater extent than in the striatum, haloperidol induced relatively equal HVA increases. However, haloperidol given in combination with an antiacetylcholine drug produced the same results as clozapine. It is concluded that the biochemical functional effects of clozapine may be due to a combined neuroleptic and antiacetylcholine effect. It is also suggested that determinations of HVA in the corpus striatum and limbic system of the rabbit may be of value in predicting the ability of neuroletpic drugs to induce in man extrapyramidal and antipsychotic actions, respectively. 11 references.

156766 Goldstein, M.; Anagnoste, B.; Shirron, C. New York Univ. Medical Center, Dept. of Psychiatry, Neurochemistry Labs., New York, NY 10016 The effect of trivastal, haloperidol and dibutyryl cyclic AMP on (14C)dopamine synthesis in rat striatum. **Journal of Pharmacy and Pharmacology (London). 25(4):348-351, 1973.**

The effects of trivastal, haloperidol, and dibutyryl cyclic AMP (db-cAMP) on the synthesis of (14C)dopamine in striatal slices were investigated using striata from male Sprague-Dawley rats. Trivastal inhibited the biosynthesis of (14C)dopamine from (14C)tyrosine: haloperidol enhanced (14C)dopamine biosynthesis. Synthesis

was stimulated by dB-cAMP, although when theophylline was omitted from the incubation mixture, the synthesis was slightly reduced; the effect of dB-cAMP was not prevented by blocking the dopamine receptors with haloperidol or by stimulating them with trivastal. It is suggested that the inhibiting effect of trivastal is related to the dopamine receptor stimulating properties of this drug. These results also support the hypothesis that a receptor mediated feedback system regulates the biosynthesis of dopamine in the striatum. With regard to the mechanism by which dB-cAMP elevates the synthesis of dopamine, it is concluded that the effects are not associated with the changes in the activity of the dopamine receptor. The results indicate that cyclic AMP may be involved in the regulation of catecholamine synthesis. 10 references.

156797 Keller, H. H.; Bartholini, G.; Pletscher, A. Research Dept., F. Hoffmann-LaRoche & Co. Ltd., Basel, Switzerland Drug-induced changes of striatal cholinergic and dopaminergic functions in rats with spreading depression. **Journal of Pharmacy and Pharmacology (London). 25(6):433-436, 1973.**

The effects of various drugs affecting the cerebral cholinergic and dopaminergic systems were investigated in male albino rats with unilateral spreading depression (SD). In animals with reversible, functional inactivation of one striatum by SD, dopaminergic stimulation of the intact striatum bu Ro 4-4602 plus L-dopa, paragline plus Ro 4-1284, apomorphine or methamphetamine caused body torsion and rotational movements towards the side of SD. Neuroleptic drugs lead to contralateral body torsion. The apomorphine induced functional changes were antagonized by the acetylcholine-like drugs arecoline and oxotremorine, but not by nicotine. Atropine, but not methylatropine, blocked the action of arecoline. It is concluded that in the regulation of muscle tone and locomotor activity, a cholinergic system (probably with muscarinic cholinoceptice sites) and a dopaminergic system in the striatum, antagonistic to each other, are involved. 13 references. (Author abstract modified)

156799 Widman, M.; Nilsson, I. M.; Nilsson, J. L. G.; Agurell, S.; Borg, H.; Granstrand, B. Faculty of Pharmacy, Box 6804m 113 86 Stockholm, Sweden Plasma protein binding of 7-hydroxy-delta1-tetrahydrocannabinol: an active delta1-tetrahydrocannabinol metabolite. **Journal of Pharmacy and Pharmacology (London). 25(6):453-457, 1973.**

The binding of (14C)7-hydroxy-delta1-tetrahydrocannabinol (THC) to human plasma proteins in vitro was studied. THC, which is a pharmacologically and psychologically active metabolite of delta1-tetrahydrocannabinol in man, was shown by equilibrium dialysis and ultradiltration to be bound 94 and 99% to plasma proteins. further experiments using the (14C) labeled compound with agarose and polyacrulamide gel electrophoresis and ultracentrifugation suggest that albumin, alpha1-lipoprotein, and, to a minor degree, beta-lipoprotein are involved in the protein binding of THC in blood plasma. 19 references. (Author abstract modified)

156801 Nilsson, I.; Agurell, S.; Nilsson, J. L. G.; Widman, M.; Leander, K. Dept. of Organic Chem. Sandasgatan, 2, S-113 27 Stockholm, Sweden Two cannabidol metabolites formed by rat liver. **Journal of Pharmacy and Pharmacology (London). 25(6):486-487, 1973.**

The metabolism of cannabidol (CBD) was studied using rat liver homogenate 10000g supernatant. Following incubation, the mixture was extracted and the extract analyzed for delta1-tetrahydrocannabinol (delta1-THC) by thin layer and gas chromatography; none could be detected. Further extractions and analysis revealed the presence of two metabolites (II and III) in a ratio of 8:2 and a few minor metabolites. Further analysis prompted the assignation of the structure 7-hydroxy-CBD to the II metabolite; the C-7 hydroxylation of CBD is analogous to the primary C-7 hydroxylation of delta1-THC and cannabinol. The III metabolite was indistinguishable from 3'-hydroxy-CBD by thin layer chromatography, gas liquid chromatography and was spectrometry. 12 references.

156803 Boakes, R. J.; Candy, J. M.; Wolstencroft, J. H. M.R.C. Neuropharmacology Unit, The Medical School, Birmingham 15, U.K. Antagonistic actions of alpha-methylnoradrenaline derived from alpha-methyldopa. **Journal of Pharmacy and Pharmacology (London). 25(6):491-492, 1973.**

Based on the results of recent studies, a process is suggested whereby alpha-methyldopa might effecte the reported reduction or abolition of the hyperpyretic response to bacterial or leukocytic pyrogen. It is suggested that alpha-methylnoradrenaline, formed intraneuronally from alpha-,ethyldopa. could act as an antagonist of concomitantly released noradrenaline. If the hyperpyretic

response is mediated by the release of noradrenaline from adrenergic terminals in the hypothalamus, the intraneuronal formation of methylnoradrenaline and its subseqient release as a less potent false transmitter would explain the effects of alpha-methyldopa. It is also possible that alpha-methylnoradrenaline plays a similar role in the hypotensice action of alpha-methyldopa. The concept that alpha-methylnoradrenaline acts centrally as a partial agonist of noradrenaline, having antagonists as well as weak agonistic properties, should be considered. 13 references.

156804 Blundell, John E.; Latham, Collin J.; Leshem, Micah B. Psychology Dept., Univ. of Leeds, Leeds LS2, 9JT, U,K, Biphasic action of 5-hydroxytryptamine inhibitor on fenfluramine-induced anorexia. **Journal of Pharmacy and Pharmacology (London). 25(6):491-494, 1973.**

The temporal relation of the action of a 5-hydroxytryptamine (5-HT) inhibitor (methysergide bimaleate) on fenfluramine induced anorexia was studied in male black hooded rats. The results of the first experiment indicated that although methysergide alone produced no apparent effect on food intake, this drug exerted a biphasic action on fenfluramine induced anorexia. In the first hour of the feeding test, methysergide antagonized the appetite suppressant action of fenfluramine; during the subsequent 7 hours, the 5-HT inhibitor had the opposite effect. The second experiment indicated that the reversal from antagonism to facilitation tool place between 2.5and 3.5hours postinjection. Similar experiments revealed no interaction between methysergide and amphetamine with respect to food intake. These data confirm the involvement of a tryptaminergic mechanism in fenfluramine anorexia and point to the importance of considering temporal parameters in the elucidation of this system. 7 references.

156807 Hrdina, Pavel D.; Ling, George M. Dept. of Pharmacology, Faculty of Medicine, Univ. of Ottawa, Ottawa, Ontario, Canada Effects of desipramine and reserpine on 'free' and 'bound' acetylcholine in rat brain. **Journal of Pharmacy and Pharmacology (London). 25(6):504-507, 1973.**

The influence of desipramine on the levels of brain acetylcholine were examined and determination was made as to whether this action could be related to the antagonism of the reserpine induced central acetylcholine like effects. The subjects were adult male Sprague-Dawley rats. One hour following the administration of desipramine (10mg/kg), there was a significant decrease in the bound acetylcholine fraction of the entire brain; the ratios of free:bound and free:total acetylcholine were also increased. Following the chronic administration of desipramine (10mg/kg twice daily for 7 days), there was a significant decrease in the calculated amount of free acetylcholine only, and a consequent increase in the ratios of free:bound and free:total acetylcholine. The administration of reserpine (2.5mg/kg) produced a significant increase in the amount of bound acetylcholine; the ratios of free:bound and free:total acetylcholine were decreased. No changes in the levels of free, bound, or total acetylcholine were observed following the simultaneous administration of desipramine and reserpine; the ratios also remained unaltered. Also, the sedation, ptosis, miosis, and diarrhea seen after reserpine alone were blocked following the administration of both drugs. It is suggested that desipramine may have produced the observed changes in the brain acetylcholine fractions by: directly influencing the uptake of choline and storage of acetylcholine; and/or interfering with the synthesis and release of the putative neurotransmitter. 23 references.

156813 Caratsch, C. G.; Waser, P. G. Pharmakologisches Institut der Universitat, Zurich, Switzerland Tricyclic antidepressants: action on synaptosomal acetylcholinesterase and ATPase in the brain of guinea pigs and subcellular distribution. **Neuropharmacology (Oxford). 12(6):563-575, 1973.**

The effects of the tricyclic antidepressants on synaptosomal acetylcholinesterase (AChE), Na+-K+ activated, MG2+ dependent ATPase (Na+-K+-ATPase), and Mg2+ activated ATPase (Mg2+-ATPase) were studied using synaptosomes obtained from homogenized guinea pig cortex. The in vitro experiments showed a general inhibition of the enzymes by all the compounds at relatively high concentrations. Opipramol did not influence the Na+-K+-ATPase. In experiments performed after the in vivo application of drug doses of 10mg/kg, the enzyme systems in the synaptosomes were not significantly influenced. The time course of the uptake of the drugs or their metabolites into the synaptosomal fractions of the cortex and the brainstem was investigated with 14C-labeled compounds. Compared to even distribution only about 10% of the expected amount

passed through the blood-brain barrier. Studies with labeled imipramine demonstrated that it was essentially particle bound in all fractions investigated. The highest specific concentration of this compound was found to be in the synaptosomal fraction, and in the brainstem it was significantly higher than in the cortex at different time intervals postinjection. A selective concentration of this antidepressively active compound may occur in the brainstem. 43 references. (Author abstract modified)

156814 Mottram, D. R.; Ivens, Caroline; Lever, J. D.; Presley, R. Dept. of Pharmacology, School of Pharmacy, Liverpool Polytechnic, Byrom St., Liverpool, L3 3AF, London A fine structural and enzyme histochemical study of muscle innervation in the normal and 6-hydroxydopamine (6-OHDA)-treated rat vas deferens including a numerical assessment of axonal changes within 48 hours of a single injection of the drug. **Neuropharmacology (Oxford). 12(6):583-595, 1973.**

A distribution study was made of presumptive adrenergic and cholinergic axons in relation to smooth muscle in the vas deferens of the normal and 6-hydroxydopamine (6-OHDA) treated rat. Acetylcholinesterase (AChE) was found to be associated with both types of nerve terminal, the cholinergic terminals being AChE positive and the adrenergic terminals being AChE part positive or AChE negative. The adrenergic terminals, identified by their content of small (300 to 500A diameter) dense cored vesicles, were specifically stigmatized by intravital 6-OHDA, but up to 48 hours posttreatment both degenerate and normal axons could be found. Specific changes in adrenergic terminals induced by 6-OHDA include: axon terminal swelling and vacuolation; dilatation of many large dense cored vesicles; and certain vesicle population changes. No changes were induced in the cholinergic terminals by the drug. 22 references. (Author abstract modified)

156815 Blundell, J. E.; Herberg, L. J. Psychology Dept., Univ. of Leeds, Leeds, LS2 9JT, England Primary polyuria accompanies 'hunger' elicited by intrahypothalamic injection of noradrenaline. **Neuropharmacology (Oxford). 12(6):597-599, 1973.**

The relationship of polyuria to intrahypothalamic injections of noradrenaline, which elicits the adrenergic feeding response, was determined in 10 adult male hooded rats. This procedure gave rise to voiding of copious amounts of dilute urine, The diuresis was primary (not secondary to the consumption of food or water), indicating suppression of a central fluid regulatory mechanism. This effect might be a result, or a cause, of the adrenergic feeding response. 11 references. (Author abstract modified)

156816 Brady, R. O.; Carbone, E. Developmental and Metabolic Neurology Br., Natl. Inst. of Neurological Diseases and Stroke, Bethesda, MD 20014 Comparison of the effect of delta9-tetrahydrocannabinol, 11-hydroxy-delta9-tetrahydrocannabinol, and ethanol on the electrophysiological activity of the giant axon of the squid. **Neuropharmacology (Oxford). 12(6):601-605, 1973.**

The effects of delta9-tetrahydrocannabinol (delta9-THC) and 11-hydroxy-delta9-THC (11-OH-delta9-THC) on impulse conduction within the giant axon of the squid were studied and compared with the effect produced by the intraaxonal injection of ethanol. The external and intraaxonal application of delta9-THC was without effect on impulse conduction in the giant axon of the squid, whereas 0.00000001M 11-OH-delta9-THC reversibly blocked conduction in this preparation. Following the intraaxonal injection of ethyl alcohol, the nerve became inexcitable and then gained full electrical recovery. The intraaxonal concentration of ethanol at which block of impulse conduction occurred was calculated to be approximately 1.9%. This pharmacological effect of 11-OH-delta9-THC compares with that produced by the intraaxonal injection of ethanol into these fibers as follows: 1) the concentration of 11-OH-delta9-THC at which nerve impulse transmission is blocked is about 7 orders of magnitude less than that required for ethanol; 2) ethanol inhibition appears to be completely reversible, whereas the amplitude of the action potential blocked by 11-OH-delta9-THC did not return to the original level within the time period examined; and 3) spontaneous electrical discharge was seen in 11-OH-delta9-THC exposed axons; no reaction of this nature occurred with ethanol treated axons. 12 references.

156818 Finch, L.; Haeusler, G. Dept. of Experimental Medicine, F. Hoffmann-La Roche and Co. Ltd., Basel, Switzerland The cardiovascular effects of apomorphine in the anaesthetized rat. **European Journal of Pharmacology (Amsterdam). 21(3):264-270, 1973.**

The cardiovascular effects of apomorphine in the urethane anesthetized rat were investigated in male Wistar rats. Apomorphine (0.01 to 1.0mg/kg, i.v.)was found to produce a short-term fall in blood pressure and, at higher dose levels (0.5to 1.0mg/kg), a marked bradycardia. Pretreatment with either reserpine or 6-hydroxy-dopamine did not affect the magnitude of the depressor responses. Haloperidol, spiroperidol, and sulpiride failed to influence the responses to apomorphine, while transection at the midcollicular level abolished the hypotensive responses. In pithed rat preparations, small pressor responses to apomorphine were obtained; similar effects were also observed in the anesthetized rat treated with atropine or after bilateral vagotomy. The efferent vagal discharges were markedly increased by apomorphine at the smaller dose levels, while the discharges from the splanchnic nerve were almost completely abolished at the highest dose level. It is concluded that the depressor effect of apomorphine is central in origin and mainly due to an increased efferent activity of the vagal nerves. This effect of apomorphine is probably not mediated by central dopaminergic receptors. 26 references. (Author abstract modified)

156819 Menon, M. K.; Clark, W. G.; Fleming, R. M. Psychopharmacology Research Lab., Veterans Administration Hosp., Sepulveda, CA 91343 Blockade of the central effects of d-amphetamine sulfate by amantadine hydrochloride. **European Journal of Pharmacology (Amsterdam). 21(3):311-317, 1973.**

The blockade of the central effects of d-amphetamine sulfate by amantadine hydrochloride was investigated in male albino Swiss mice. In mice pretreated with amantadine (150mg/kg), d-amphetamine (2 or 5mg/kg) failed to produce hyperactivity; this pretreatment also protected aggregated mice from the lethal effects of d-amphetamine (30mg/kg). Both d-amphetamine (15mg/kg) and chlorpromazine hydrochloride (10mg/kg) caused elevations in the homovanillic acid concentrations in the caudate nucleus of the mouse, and amantadine pretreatment blocked this response to d-amphetamine but not that to chlorpromazine. Due to the many similarities in the pharmacological, behavioral, biochemical, and clinical effects of amantadine and d-amphetamine, they may act at the same receptor, and the observed antagonism may be due to a competitive blockade so that d-amphetamine fails to reach its site of action. 29 references. (Author abstract modified)

156821 Gerald, Michael C.; Riffee, William H. Div. of Pharmacology, College of Pharmacy, Ohio State Univ., Columbus, OH 43210 Acute and chronic effects of d- and l-amphetamine on seizure susceptibility in mice. **European Journal of Pharmacology (Amsterdam). 21(3):323-330, 1973.**

The effects of d-amphetamine and l-amphetamine on different patterns of seizure activity in male mice (e.g.,pentylenetetrazol induced minimal (clonic) and maximal (tonic) seizures and low frequency electroshock seizure threshold (l.f. EST)) were studied. The acute administration of d- and l-amphetamine increased susceptibility to minimal and l.f. Est. Whereas l-amphetamine increased maximal seizure susceptibility, the d-isomer decreased susceptibility to their seizure pattern. Daily injections of the amphetamine isomers for 7 consecutive days produced tolerance to all these changes in seizure threshold. d-Amphetamine was approximately twice as active as l-amphetamine in altering seizure threshold. These studies are in agreement with the concept that amphetamine enhanced pentylenetetrazol induced seizures are mediated by dopamine. The chronic administration of saline for 7 days reduced susceptibility to maximal seizures and l.f. EST 35% and 72% respectively, but had little effect on minimal seizure threshold. 17 references. (Author abstract)

156822 Ho, I. K.; Loh, Horace H.; Way, E. Leong. Dept. of Pharmacology, Univ. of California, San Francisco, CA 94122 Influence of 5,6-dihydroxytryptamine on morphine tolerance and physical dependence. **European Journal of Pharmacology (Amsterdam). 21(3):331-336, 1973.**

The effects of 5,6-dihydroxytryptamine (5,6-DHT) on the development of morphine tolerance and physical dependence were studied using male Swiss-Webster mice. The intracerebral administration of 5,6-DHT inhibited the development of tolerance to and physical dependence on morphine induced by morphine pellet implantation. Reduction in tolerance development by 5,6-DHT was evidenced by the decreased amount of morphine necessary to produce analgesia, and reduction in the development of dependence was evidenced by the increase in the amount of naloxone necessary to induce precipitated withdrawal jumping in comparison with morphine implanted animals receiving saline. Further evidence that 5,6-DHT reduced the development of dependence on morphine was the fact that 5,6-DHT decreased the loss in body weight which occurred following

abrupt morphine withdrawal. At the dose level used (60microg of the creatinine sulfate dihydrate 24 hours prior to morphine pellet implantation), 5,6-DHT reduced the level of serotonin in the brain to 75% control levels within 4 days; the catecholamine levels remained unchanged. These data substantiate the suggestion that the central serotonergic system may be involved in the development of morphine tolerance and dependence. 21 references. (Author abstract modified)

156824 Costall, B.; Naylor, R. J. Postgrad. School of Studies in Pharmacology, Univ. of Bradford, Bradford 7, Yorkshire, England On the mode of action of apomorphine. **European Journal of Pharmacology (Amsterdam). 21(3):350-361, 1973.**

The role of presynaptic events in the mediation of the stereotypic effect of apomorphine was investigated in male Sprague-Dawley rats using drugs known to modify catecholamine function. Oxypertine and Ro 04-1284, agents considered to reduce catecholamine transmission by the depletion of brain amines, were shown to reduce or abolish the dose dependent stereotypy induced by apomorphine. However, reserpine and alpha-methyl-p-tyrosine, agents also thought to exert their effects via the reduction of brain amines, were found to enhance the apomorphine induced behavior. In contrast, agents which could be expected to enhance presynaptic events, the monoamine oxidase inhibitors tranylcypromine and nialamide, and the catechol-O-methyl transferase inhibitor pyrogallol, reduced the stereotypic effect of apomorphine. The results indicate either that presynaptic events are important in the mediation of apomorphine stereotyped behavior, or that the currently accepted hypotheses on the mode of action of the indole and benzoquinolizine derivatives may require revision to include an effect upon postsynaptic events and the pretreatment regimes may influence systems other than those containing catecholamines and which normally modify the apomorphine effect. 44 references. (Author abstract)

156825 De Oliveira, L. F.; Bretas, A. D. Dept. of Pharmacology, Inst. of Biomed. Sciences, Federal Univ. Rio de Janeiro--UFRJ, Av. Pasteur, 458, Rio de Janeiro, Brazil Blockade by bufotenidine of the serotonin- and narcotic-analgesics-induced contraction of dog intestine in vivo. **European Journal of Pharmacology (Oxford). 21(3):369-371, 1973.**

The effects of bufotenidine, a neural tryptaminic receptor blocking agent, on serotonin, morphine, and dextromoramide induced intestinal contraction were studied in six dogs. Serotonin seems to mediate the effects of morphine in the intestine. Tryptaminic blocking agents such as LSD-25 and bromolysergic acid diethylamide, do not block the effects of serotonin or morphine in the intestine. However, bufotenidine blocked the effects of both serotonin and morphine on intestinal motility. 7 references. (Author abstract modified)

156869 Goldfine, Ira D.; Gardner, Jerry D.; Neville, David M., Jr. Section on Biophysical Chemistry, Laboratory of Neurochemistry, National Institute of Mental Health, Bethesda, MD 20014 Insulin stimulation of AIB transport in rat thymocytes. (Unpublished paper) Bethesda, MD, NIMH, 1972. 41 p.

The transport of alpha-aminoisobutyric acid (AIB) in suckling rat thymocytes, the effect of insulin on this process, and the correlation between insulin receptor binding and insulin stimulation of transport were studied in thymocytes isolated from 13 to 19-day-old animals. Rat thymocytes responded to insulin with an increased influx of AIB. Biologically inactive insulin derivatives as well as ACTH and glucagon were without effect. Insulin increased AIB influx by both raising the maximal influx capacity and lowering the concentration of AIB at which influx was half maximal; insulin did not affect AIB fractional outflux, The research data suggest that: 1) insulin stimulation of AIB transport on rat thymocytes correlates in sensitivity and specificity with 125I-insulin binding to receptors, and 2) insulin stimulation of AIB influx may be mediated by changes in synthesis or degradation of the AIB transport apparatus. 31 references.

156877 Cox, A. Chadwick. no address Binding sites for norepinephrine in the brain. Final report, NIMH Grant MH-20566, 1972. 4 p.

A preliminary finding of a rat brain fraction that bound norepinephrine even after precipitation with trichloracetate was investigated further. This fraction could not be produced by the worker who began the project using the same methodology employed in the preliminary work. The investigator who performed the preliminary studies, however, returned to the laboratory and reproduced his earlier findings. No reason was found to explain the difference in the findings of

the two workers. Two other projects were also undertaken. One examined a model of NE and adenosinetriphosphate (ATP) storage in synaptic vesicles. Liposomes were prepared which contained the 4:1 complex of NE and ATP. Attempts to isolate these liposomes from the free complex in the external solution always produced liposomes containing only ATP. The synaptic vessels must not be as permeable to NE as the liposomes but it is unlikely that the complex formation can explain NE concentration in the synaptic vesicles. The second project examined the mechanism of cholera toxin which acts as a competitive stimulant to NE target cells. Cholera toxin caused an increase in the phosphorylation of the proteins of the intestinal epithelial cells and more specifically of the brush border proteins. NE is known to cause the nerve ending membrane proteins to be phosphorylated. It is postulated that cholera toxin might serve as a stronger and more specific agent than NE for this task. 2 references. (Author abstract modified)

156879 Lucid, S. W.; Cox, A. C. Dept. of Biochemistry and Molecular Biology. Univ. of Oklahoma Health Sciences Center, Oklahoma City, OK 73190 The effect of cholera toxin on the phosphorylation of protein in epithelial cells and their brush borders. **Biochemical and Biophysical Research Communications. 49(5):1183-1186, 1972.**

The effect of cholera toxin on the phosphorylation of protein in epithelial cells and their brush borders was investigated in white female rats of the Stanley-Gumbreck strain. Cholera toxin was found to increase the amount of phosphate incorporated into the protein fraction of intestinal epithelial cells. The brush border of the cell is one site of increased phosphorylation. The magnitude of this increase could be correlated with the purity of the brush border preparation. Within this membrane, the amount of labeled phosphate increases most in the microvilla core fraction. 10 references.

157000 Costa, E.; Revuelta, A. Lab. of Preclinical Pharmacology, NIMH, St. Elizabeths Hosp., Washington, DC Norfenfluramine and serotonin turnover rate in the rat brain. **Biochemical Pharmacology (Oxford). 21(17):2385-2393, 1972.**

The effect of norfenfluramine on the turnover rate of serotonin in the rat brain was investigated using male Sprague-Dawley rats. Norfenfluramine (40micromols/kg, i.v.)caused generalized tremors, rigidity, backwards walking, salivation, and hyperthermia lasting about 40 minutes. This dose also markedly lowered the serotonin concentrations in the tel-diencephalon, with the effects lasting longer than 50 hours. In contrast, the serotonin concentrations in the brainstem and hypothalamus were slightly reduced 7 hours after norfenfluramine administration, returning to normal after 18 hours. This dose of the drug did not affect the brain norepinephrine or dopamine concentrations. Atropine (72micromols/kg, i.p.,30 minutes before norfenfluramine) reduced the pharmacological effects, but failed to affect the persistent decrease in the tel-diencephalic serotonin concentrations. The lowering of tel-diencephalic and brainstem serotonin is associated neither with a decrease in the turnover rate of this brain amine nor with a decrease in the 5-hydroxyindoleacetic acid concentrations in the brain tissue. Actually, the serotonin turnover rate is increased, suggesting that norfenfluramine, unlike its chemical congener p-chloroamphetamine, lowers brain serotonin but does not inhibit the synthesis of this amine. 22 references. (Author abstract modified)

157038 Hitzemann, R. J.; Loh, H. H.; Craves, F. B.; Domino, E. F. Department of Pharmacology, University of California Medical Center, San Francisco, CA 94122 The use of d-amphetamine pellet implantation as a model for d-amphetamine tolerance in the mouse. **Psychopharmacologia (Berlin). 30(3):227-240, 1973.**

The use of d-amphetamine pellet implantation as a method for producing rapid central drug tolerance was investigated. Mice were implanted with d-amphetamine pellets containing 2mg of drug and were challenged 24 h later, a time when no detectable drug was present, with various doses of d-amphetamine. Implantation was found to potentiate the stereotyped activity and produced tolerance to the exploratory activity induced by d-amphetamine. Daily pellet implantation for 3 days was not found to produce tolerance to the stereotyped activities. Animals administered a single pellet showed no difference in the brain disposition or metabolism of a subsequent dose of 3H-d-amphetamine. Twenty four hour pellet implantation markedly increased the rate of conversion of 3H-tyrosine to 3H-dopamine and 3H-norepinephrine in the subcortex. However, this effect was reversed by the administration of 10mg/kg of d-amphetamine. 32 references. (Author abstract)

157063 Carmichael, F. J.; Israel, Y. Department of Pharmacology, University of Toronto M.S.B., Toronto M5S 1A8, Ontario, Canada In vitro inhibitory effects of narcotic analgesics and other psychotropic drugs on the active uptake of norepinephrine in mouse brain tissue. **Journal of Pharmacology and Experimental Therapeutics. 186(2):253-260, 1973.**

The effect of several narotic analgesics and other psychotropic compounds on the uptake of 3H-norepinephrine by mouse brain slices or synaptosomes was studied. Codeine, hydromorphone, levorphanol, meperidine, methadone, morphine and naloxone inhibited the uptake of norepinephrine. However, there was no correlation between their inhabitory potency and their analgesic potency. The findings suggest that an inhibition of the uptake of norepinephrine is not involved in the in vivo effects of morphine. Several other psychotropic drugs such as desipramine, chlorpromazine and benztropine were found to be potent inhibitors of the uptake of norepinephrine in vitro. A highly significant correlation was observed between the inhibition of uptake of norepinephrine by all the compounds studied and their lipid solubility. 44 references. (Author abstract)

157065 Gessner, Peter K.; Soble, Alan G. 122 Capen Hall, State University of New York at Buffalo, Buffalo, NY 14214 A study of the tranylcypromine-meperidine interaction: effects of p-chlorophenylalanine and 1-5-hydroxytryptophan. A study of the tranylcypromine-meperidine interaction: effects of p-chlorophenylalanine and 1-5-hydroxytryptophan. **Journal of Pharmacology and Experimental Therapeutics. 186(2):276-287, 1973.**

In a study of the tranylcypromine - meperidine interaction, the effects of p-chlorophenylalanine and l-5-hydroxytryptophan were examined. Tranylcypromine and meperidine administered 4 hours apart to mice exhibited marked superadditivity of their toxic actions. Pretreatment with p-chlorophenylalanine before the experiment markedly lowered the mortality of mice receiving tranylcypromine and meperidine but not those receiving tranylcypromine and meperidine but not those receiving either tranylcypromine or meperidine alone. The toxic response of mice to the tranylcypromine-meperidine combination was mediated by 5-hydroxytryptamine. Meperidine administration 4 hours after tranylcypromine resulted in a marked hyperthermic response. This response was significantly augmented if 5-hydroxytryptophan was coadministered with the meperidine. Pretreatment with p-chlorophenylalanine did not prevent the development of a hyperthermic response to meperidine in mice administered tranylcypromine 4 hours earlier; however, the p-chlorophenylalanine pretreated mice had generally lower body temperatures than control mice. 62 references. (Author abstract)

157068 Cheng, H. C.; Long, J. P.; Barfknecht, C. F.; Nichols, D. E. Department of Pharmacology, College of Medicine, University of Iowa, Iowa City, IA Cardiovascular effects of 2,5-dimethoxy-4-methylamphetamine (DOM, STP). **Journal of Pharmacology and Experimental Therapeutics. 186(2):345-354, 1973.**

The cardiovascular effects of 2,5-dimethoxy-4-methylamphetamine (DOM,STP) were studied in dogs. A single dose of DOM produced a pressor response in vagotomized dogs. There was also an increase in pulse pressure. Tachyphylaxis developed rapidly after repeated doses of DOM. Responses to tyramine were not diminished after tachyphylaxis to DOM developed. DOM also enhanced pressor responses to norepinephrine, epinephrine and tyramine. In perfused dog fore limb DOM produced a vasodilation followed by a vasoconstriction. The vasoconstriction produced by DOM was not blocked by phentolamine but was antagonized by methysergide. It was concluded that DOM had a direct stimulatory effect on serotonin receptors. The vasodilation in the perfused fore limb of the dog induced by DOM was not antagonized by propranolol, atropine, pyrilamine or bulbocapnine. 25 references. (Author abstract)

157094 Brunner, Robert L.; Rossi, Ronald R.; Hastings, Lloyd. Laboratory of Developmental Neurobiology, Department of Biological Sciences, Purdue University, Lafayette, IN 47907 ECS produced disruption or facilitation of discriminated active avoidance performance in rats. **Physiology & Behavior. 10(5):847-850, 1973.**

The effect of electroconvulsive shock on the performance of a one way active avoidance response was studied in rats. It was found that if the response was learned under scopolamine, electoconvulsive shock (ECS) given prior to relearning failed to produce a deficit. It was also demonstrated that ECS facilitated relearning of a response trained to a low criterion level while it disrupted performance of a response trained to a

strict criterion. These results support other indications that Deutsch's memory model has predictive value for proactive effects of ECS on relearning (retrieval). 21 references. (Author abstract)

157109 Saavedra, Juan M.; Axelrod, Julius. National Institutes of Health Fellow, Consejo de Investigaciones Cientificas y Tecnicas, Republica Argentina Effect of drugs on the tryptamine content of rat tissues. **Journal of Pharmacology and Experimental Therapeutics. 185(3):523-529, 1973.**

The effect of drugs on the tryptamine content of rat organs was studied by means of an isotopic enzymatic method. l-Tryptophan, iproniazid and p-chlorophenylalanine produced a moderate increase in the brain tryptamine concentration. The combined administration of the three drugs increased the brain tryptamine seven-fold. l-Tryptophan together with iproniazid also increased the tryptamine content in heart and lung. Lung tissue retained high tryptamine levels for a longer period. The administration of reserpine was without any effect in the brain and heart and only slightly decreased the endogenous tryptamine in lung. These results indicate that the decarboxylation of l-tryptophan to tryptamine is an alternate pathway for the tryptophan metabolism in rat tissues, especially after tryptophan hydroxylase inhibition and tryptophan administration. The normal presence of tryptamine in human brain also is reported. 20 references. (Author abstract)

157110 Westfall, David P. Department of Pharmacology, West Virginia University Medical School, Morgantown, WV 26506 Antagonism by protriptyline and desipramine of the response of the vas deferens of the rat to norepinephrine, acetylcholine and potassium. **Journal of Pharmacology and Experimental Therapeutics. 185(3):540-550, 1973.**

The antagonism by protriptyline and desipramine (DMI) of the response of the vas deferens of the rat to norepinephrine, acetylcholine and potassium is reported. It is suggested that the potentiation by these compounds can be explained by their known action of inhibition of the neuronal uptake mechanism for norepinephrine. The antagonism exhibited by protriptyline and DMI extends to acetylcholine and potassium, which suggests that the tricyclic compounds are noncompetitive antagonists. Protriptyline and DMI exhibited local anesthetic action with a potency similar to that of cocaine and lidocaine. The latter two compounds are also noncompetitive antogonists of the response of the vas deferens to drugs. There are significant differences between these two classes of drugs: 1) antagonism of the response of the vas deferens to potassium occurs with concentrations of protriptyline and DMI which were 1/100 to 1/200 of those necessary to produce local anesthesia, whereas cocaine and lidocaine antogonize potassium-induced contractions in concentrations which produce local anesthesia; and 2) concentrations of cocaine and lidocaine which antogonize the response to norepinephrine also reduce the duration of the response to norepinephrine. 26 references. (Author abstract)

157111 Bunney, Benjamin S.; Walters, Judith R.; Roth, Robert H.; Aghajanian, George K. 34 Park St., New Haven, CT 06519 Dopaminergic neurons: effect of antipsychotic drugs and amphetamine on single cell activity. **Journal of Pharmacology and Experimental Therapeutics. 185(3):560-571, 1973.**

The effects of amphetamine, various phenothiazines and haloperiodol on dopaminergic neurons in the substantia nigra and ventral tegmental area of the rat midbrain were studied in anesthetized and gallamine paralyzed animals. d-Amphetamine administered intravenously markedly decreased the spontaneous activity of dopaminergic neurons in the substantia nigra and ventral tegmental area. Antipsychotic phenothiazines and haloperidol increased the firing rate of these cells and reversed the d-amphetamine depression. Promethazine, a phenothiazine lacking antipsychotic efficacy, had no effect. In an experiment designed to correlate changes in firing rate with dopamine metabolism, neostriatal 3,4-dihydroxyphenylacetic acid concentrations were determined before and after administration of chlorpromazine, amphetamine, and promethazine. Neostriatal 3,4-dihydroxyphenylacetic acid was increased by chlorpromazine, decreased by amphetamine and unchanged by promethazine, thus parallelling the effects of these drugs on dopaminergic unit activity. The findings are compatible with the neuronal feedback hypothesis originally suggested as a mechanism by which these drugs might alter dopamine metabolism. 43 references. (Author abstract)

157112 Jordan, Larry M.; Willis, William D., Jr. Department of Physiology, University of Manitoba, Winnipeg 3, Canada Effect of para-

methoxyphenylethylamine on polysynaptic pathways and on interneurons of the cat lumbar spinal cord. **Journal of Pharmacology and Experimental Therapeutics. 185(3):572-582, 1973.**

The action of para-methoxyphenylethylamine (PMPEA) upon interneuronal pathways in the spinal cord was examined in spinal cats anesthetized with alpha-chloralose. The polysynaptic facilitation or inhibition of the monosynaptic reflex produced by conditioning volleys in cutaneous afferent fibers was reduced by injections of PMPEA, as were the cord dorsum N wave, the negative dorsal root potential and the cord dorsum P wave. The findings suggest that PMPEA interferes with transmission in interneuronal pathways in the spinal cord. The acitivity of single interneurons was also depresswd by PMPEA. However, the drug appeared not to depress the recurrent inhibitory pathway or the discharges of Renshaw cells. The action was not a generalized suppression of all types of interneuronal activity. Synaptic noise in motoneurons was often reduced by PMPEA, presumably secondarily to the depression of interneurons. Similarities between the actions of PMPEA and of agents which elevate the levels of monoamines in the spinal cord are pointed out. These findings support the concept that PMPEA exerts its effects at monoaminergic synapses. 35 references. (Author abstract)

157116 Maruyama, Yuji; Takemori, A. E. Department of Pharmacology, Keio University Medical School, Shinanomachi, Shinjuku-ku, Tokyo The role of dopamine and norepinephrine in the naloxone-induced abstinence of morphine-dependent mice. **Journal of Pharmacology and Experimental Therapeutics. 185(3):602-608, 1973.**

The role of dopamine and norepinephrine in the naloxone induced abstinence of morphine dependent mice was studied. Mice were made physically dependent by implantation with morphine pellets and then pretreated with various agents which are known to alter brain catecholamine levels before the stereotyped jumping was induced by naloxone. Disulfiram pretreatment decreased central norepinephrine (NE) levels by 46% and inhibited naloxone induced jumping by 49%. Alpha-methyltyrosine (MT) pretreatment decreased NE by 73% and dopamine by 81% and inhibited the number of jumps by 89%. Pretreatment with 3-(3,4-dihydroxphenyl)-L-alanine in addition to alpha-MT restored the dopamine concentration and the numbers of jumps were increased 4-fold over those of mice pretreated with alpha-MT alone. Pretreatment with threo-dihydroxyphenylserine in addition to alpha-MT restored the NE concentration but the jumping was still inhibited by 90%. The full expression of abstinence syndrome in morphine dependent mice appears to require the integrity of the central stores of NE and dopamine, especially the latter amine. 32 references. (Author abstract)

157117 Smith, Ronald D.; Cooper, Barrett R.; Breese, George R. Department of Pharmacology, Child Development Institute, University of North Carolina School of Medicine, Chapel Hill, NC Growth and behavioral changes in developing rats treated intracisternally with 6-hydroxydopamine: evidence for involvement of brain dopamine. **Journal of Pharmacology and Experimental Therapeutics. 185(3):609-619, 1973.**

Growth and behavioral changes in developing rats treated intracisternally with 6-hydroxydopamine are reported. Intracisternal administration of 6-hydroxydopamine to immature rats produced marked reductions of norepinephrine, dopamine and tyrosine hydroxylase activity in brain. Accompanying these reductions were alterations in growth and behavior clearly demonstrable when adult. The 6-hydroxydopamine-treated rats showed decrements in eating and drinking, in their intake of a sucrose solution and in the ability to improve performance during acquisition of a shuttle box avoidance response. To evaluate the roles of norepinephrine or dopamine in the deficits, methods were developed to reduce these amines preferentially in the brains of immature rats. Animals in which dopamine was preferentially reduced showed similar deficiencies to those described above whereas norepinephrine depleted rats did not show these alterations. The data suggest that the decrements in the 6-hydroxydopamine-treated developing rat are due to reduction in brain dopamine and support the view that dopaminergic neurons are involved in the maintenance of consummatory behavior as well as conditioned avoidance responding. 42 references. (Author abstract)

157118 Taylor, W. A.; Sulser, F. Department of Pharmacology, University of Colorado School of Medicine, Denver, CO Effects of amphetamine and its hydroxylated metabolites on central noradrenergic mechanisms. **Journal of Pharmacology and Experimental Therapeutics. 185(3):620-632, 1973.**

The role of the hydroxylated metabolites of amphetamine in its mode of action were studied and the correlations between biochemical and phrmacological effects elicited by amphetamine (A), p-hydroxyamphetamine (POH) and p-hydroxynorephedrine (PHN) and the half-life of the drugs in brain after their intraventricular administration were examined. d-A, and to a lesser degree l-A and PHN, caused predominately an increase in stereotyped activity while POH elicited mainly locomotor stimulation. d-POH and racemic POH caused a marked and sustained depletion of brain NE which was related to the level of these metabolites in brain. Regardless of their effect on the steady state concentration of brain NE, PHN and the optical isomers of A and of POH did not block the initial accumulation of radioactivity or of 3H-NE into brain tissue, but all drugs appeared to block the reuptake of the tritiated amine. Besides the common property of blocking reuptake, different release mechanisms are proved operative for A and for its hydroxylated metabolites. The results emphasize the importance of metabolic considerations in the interpretation of the action of A after its systemic or intraventricular administration. 40 references. (Author abstract)

157139 Saxena, P. N.; Johri, M. B. L. Department of Pharmacology, J. L. N. Medical College, A. M. U. Aligarh, India Antagonistic activity of some phenothiazine derivatives against neurohumoral transmitters. **Japanese Journal of Pharmacology (Kyoto). 23(3):363-371, 1973.**

The antagonistic activity of eighteen phenothiazine derivatives against the neurohumors histamine, acetylcholine (ACh), noradrenaline (NA), and 5-hydroxtryptophan (5-HT) was studied in vitro and compared with accepted specific antagonists, viz, diphenhydramine, atropine, tubocurarine, phenoxybenzamine and LSD-25. The phenothiazines exhibited a dual antagonism against histamine and muscarinic action of ACh. The phenothiazines showed a noncompetitive antagonism against ACh (nicotinic action), NA and 5-HT. The activity against ACh (nicotinic action) was low while that against 5-HT was moderate. The alpha-adrenergic blocking activity was not shared by all the derivatives and some even potentiated the NA response. Only atropine and tubocurarine exhibited a pure competitive antagonism over a wide concentration range on the muscarinic and nicotinic receptors, respectively. Phenoxybenzamine possessed the widest spectrum of activity, antagonizing all the neurohumors. 5-HT receptors showed the maximum susceptibility to blockade, reacting to all the phenothiazines and reference antagonists. 18 references. (Author abstract modified)

157141 Blasig, J.; Reinhold, K.; Herz, A. Max-Planck-Institut fur Psychiatrie, D-8000 Munchen 40, Kraepelinstrasse 2, Germany Effect of 6-hydroxydopamine, 5, 6-dihydroxytryptamine and raphe lesions on the antinociceptive actions of morphine in rats. **Psychopharmacologia (Berlin). 31(2):111-119, 1973.**

The antinociceptive effect of morphine was studied in rats in which degeneration of catecholamine or serotonin containing nerve terminals had been induced. Vocalization during electric stimulation of the tail was used as a test for nociception. Intraventricular injection of 6-hydroxydopamine markedly reduced brain catecholamines without affecting 5-HT levels; this change was accompanied by a significant reduction of the stimulation threshold both before and after application of morphine. Intraventricular injection of 5,6-dihydroxytryptamine significantly depleted central 5-HT content; the stimulation threshold before and after morphine injection was not affected. Lesions of the midbrain raphe system induced a great reduction of forebrain 5-HT; the morphine effect was not significantly changed. 23 references. (Author abstract)

157142 Sofia, R. Duane; Kubena, Robert K.; Barry, Herbert, III. Wallace Laboratories, Cranbury, NJ 08512 Inactivity of delta9-tetrahydrocannabinol in antidepressant screening tests. **Psychopharmacologia (Berlin). 31(2):121-130, 1973.**

The inactivity of delta9-tetrahydrocannabinol (THC) in antidepressant screening tests was studied. With several standard procedures commonly used to detect antidepressant activity in experimental animals, THC was virtually inactive over a wide range of dose. The tests were: 1) reversal of tetrabenazine induced depression in mice; 2) reversal of reserpine induced hypothermia in rats; 3) enhancement of yohimbine toxicity in mice; 4) inhibition of tremors and salivation induced by tremorine in mice. The findings are discussed with respect to previous studies indicating THC may possess antidepressant activity in animals and humans. 30 references. (Author abstract)

157143 Borbely, Alexander A.; Huston, Joseph P.; Waser, Peter G. Institute of Pharmacology,

University of Zurich, Gloriastrasse 32, CH-8006, Zurich, Switzerland Physiological and behavioral effects of parachlorophenylalanine in the rat. **Psychopharmacologia (Berlin). 31(2):131-142, 1973.**

The effect of parachlorophenylalanine (PCPA) on several physiological and behavioral parameters was investigated with telemetric methods in the unrestrained rat. Body temperature did not change with the exception of an immediate and short lasting decrease after drug injection. Food and water intake were maximally depressed on the day following drug administration, and recovered gradually during the subsequent days. Click evoked potentials recorded from the auditory cortex and inferior colliculus maintained their typical waveforms during synchronized and desynchronized sleep indicating that PCPA does not produce a qualitative change of the sleep stages. PCPA exerted profound changes on motor activity. The circadian rhythms of feeding, drinking and motor activity were attenuated. Since the time course of these changes corresponds to that known for serotonin depletion in the brain it is suggested that serotoninergic neuronal mechanisms may play a major role in the organization of behavioral rhythms. 23 references. (Author abstract modified)

157151 Stolerman, I. P.; Fink, R.; Jarvik, M. E. Department of Psychology, University of California, Los Angeles, CA 90024 Acute and chronic tolerance to nicotine measured by activity in rats. **Psychopharmacologia (Berlin). 30(4):329-342, 1973.**

Spontaneous locomotor activity was used to assess the development and the dissipation of tolerance to nicotine in rats. Nicotine administered to naive rats depressed activity in a Y-shaped runway in a dose related manner. After a single dose of nicotine, acute tolerance to the depressant action of a second dose developed with a definite time course. Repeated doses of nicotine elicited chronic tolerance, which was found to persist for at least 90 days after the end of regular treatment with the drug. Tolerance was also produced when nicotine was administered in rats' drinking water and through reservoirs implanted subcutaneously. It is concluded that tolerance to nicotine in rats can develop quickly, may be measured easily, and persists for prolonged periods after withdrawal. The doses of nicotine necessary to induce chronic tolerance in rats were similar to those probably obtained by cigarette smokers. It is suggested that relapse to tobacco use in man may be assoicated with the persistence of tolerance. 35 references. (Author abstract)

157152 Glick, Stanley D.; Charap, Arthur D. Bernstein Institute, Beth Israel Medical Center, 307 Second Ave., New York, NY 10003 Morphine dependence in rats with medial forebrain bundle lesions. **Psychopharmacologia (Berlin). 30(4):343-348, 1973.**

In a study of morphine dependence, rats with posterior medial forebrain bundle (PMFB) lesions and control rats were administered morphine chronically for 4 or 5 days. Following cessation of morphine administration after 5 days, PMFB rats showed less withdrawal induced weight loss than control rats. Other PMFB and control rats were subjected to forced drinking of morphine solution for 9 days. PMFB rats consumed the morphine solution much more readily than control rats, whereas intake of a quinine solution was similar in two other PMFB and control groups. The results suggest that the addictive and dependence properties of morphine may have separate mechanisms and, based on previously reported neurochemical effects of PMFB lesions, that biogenic amines may be differentially involved in such mechanisms. 8 references. (Author abstract)

157155 Fabian, Haydee E. M.; Chemerinski, Elba; Merlo, Alicia B.; Izquierdo, Juan A. Catedra de Farmacologia Experimental, Facultad de Farmacia y Bioquimica, Buenos Aires, Argentina Effect of propranolol on free fatty acids of mice plasma during a passive avoidance test. **Psychopharmacology (Berlin). 30(4):369-374, 1973.**

Using the technique of Essman and Alpern on passive avoidance, the effects of propranolol were studied in adult male Rockland mice. Avoidance is favored in the retest after 24 h by 2mg/kg propranolol, but not by 10mg/kg propranolol. Free fatty acids (FFA) in plasma significantly increase immediately after foot shock (FS) and the retest in control animals (saline); the 2mg/kg dose of propranolol lowers the FFA level after FS and the retest, whereas 10mg/kg of propranolol has no antilipolytic effect on FFA after FS. The effect of propranolol on retention would be independent of the FFA increase as observed at the end of the retest. 17 references. (Author abstract)

157178 Heikkila, R. E.; Mytilneou, C.; Cote, L.; Cohen, G. College of Physicians and Surgeons, Columbia University, 640 West 168th St., New

York, NY 10032 Evidence for degeneration of sympathetic nerve terminals caused by the ortho- and para-quinones of 6-hydroxydopamine. **Journal of Neurochemistry. 20(5):1345-1350, 1973.**

The effects of 6-Hydroxydopamine and its corresponding ortho-and para-quinones when injected intraperitoneally into male Swiss-Webster mice are discussed. Measurements made 72 h after injection showed that all three compounds caused a decrease in the uptake of 03H0norepinephrine into slices of mouse heart tissue in vitro, a decrease in the endogenous content of heart norepinephrine, and a disappearance of the adrenergic nerve plexus of the mouse iris as viewed by fluorescence histochemistry. These data suggest that both the ortho- and para-quinones of 6-hydroxydopamine are capable of producing a chemical sympathectomy similar to that caused by 6-hydroxydopamine. 18 references. (Author abstract)

157185 Clouet, Doris H.; Williams, Norman. New York State Narcotic Addiction Control Commission, Testing and Research Laboratory, Brooklyn, NY 11217 Localization in brain particulate fractions of narcotic analgesic drugs administered intracisternally to rats. **Biochemical Pharmacology (Oxford). 22(11):1283-1293, 1973.**

The localization in brain particulate fractions of narcotic analgesic drugs administered intracisternally to rats is reported. Radio labeled dihydromorphine, morphine, methadone and levorphanol were administered to rats in pharmacologically active doses by the intracisternal route of administration, and the rats were killed 0.5or 1 hr later. The drugs were localized in the fraction of brain containing the pinched off presynaptic nerve endings, the synaptosomes, as well as in the soluble portion of the tissue. The 14C labeled narcotic antagonists, naloxone and nalorphine, were also localized in the same particulate fraction of brain. The amount of drug in the synaptosomal fraction was dependent on the dose of drug, on the time between drug administration and sacrifice, and on the region of brain, and was specific for each narcotic agonist and antagonist. The relevance of this localization of narcotic analgesic drugs in the synaptosomal fractions of rat brain to the mechanism of action of the drugs remains to be explored. 16 references. (Author abstract)

157318 Schulz, R.; Goldstein, A. Department of Pharmacology, Stanford University, Stanford, CA 94305 Morphine tolerance and supersensitivity to 5-Hydroxytryptamine in the myenteric plexus of the guinea-pig. **Nature (London). 244(5412):168-169, 1973.**

Results from a study examining the increased sensitivity of morphine tolerant guinea pigs to 5-Hydroxytryptamine (5-HT) are reported; the muscle strips from morphine tolerant animals being about 10 times more sensitive to the 5-HT spasmogenic effect than normal strips. The mechanism of morphine tolerance is discussed in a theory proposing that such tolerance is produced by an increase in the number of intrinsic sensitivity of 5-HT receptors. It is suggested that this may be the first demonstration of an altered sensitivity to a neurotransmitter associated with morphine tolerance, but that its relevance to tolerance and dependence in the central nervous system is uncertain. 26 references.

157497 Stern, Warren C.; Morgane, Peter J. Laboratory of Neurophysiology, Worcester Foundation for Experimental Biology, Shrewsbury, MA Effects of alpha-methyltyrosine on REM sleep and brain amine levels in the cat. **Biological Psychiatry. 6(3):301-306, 1973.**

The hypothesis that alpha-methyltyrosine, an inhibitor of catecholamine synthesis, does not block REM sleep, but instead augments it is tested. Eleven female cats were implanted with electrodes and, after a period of adjustment and baseline readings, 75mg/kg of alpha-methyltyrosine (AMT) or of AMT methylester was injected and sleep - waking patterns were recorded. Four other cats were similarly injected and sacrificed along with eight normal cats in order to measure regional brain biogenic amine levels. AMT significantly depressed norepinephrine levels in 10 areas of the brain. Serotonin levels were significantly depressed in two areas. Both AMT groups showed significantly greater amounts of REM sleep due to the lengthening of REM episodes. These results do not support the view that brain catecholamines trigger the REM state. 21 references.

158002 Hutchins, D. A.; Rogers, K. J. Institute of Animal Physiology, Agricultural Research Council, Babraham, Cambridge, England Some observations on the circadian rhythm of locomotor activity of mice after depletion of cerebral monoamines. **Psychopharmacologia (Berlin). 31(4):343-348, 1973.**

Drugs that selectively deplete the monoamines of the brain were administered to male albino mice at different times of the day to determine their effect on the separate components of mice circadian locomotor activity. The findings indicate that: an injection of alphamethyl-p-tyrosine methylester (H44/68) abolishes the first phase of activity but not the second; treatment with p-chlorophenylalanine (p-CPA) leads to a single phase of continuous activity; and reserpine treatment results in an almost total inhibition of activity. The results obtained with H44/68 and p-CPA suggest that the initiation of the first phase of activity depends on an intact synthesis for the catecholamines whereas its termination may depend on a change in the metabolism of 5-hydroxytryptamine. The inhibition of locomotor activity following an injection of reserpine suggests that an unimpaired mechanism for the storage of the cerebral monoamines is essential for the maintenance of either phase of activity. 7 references. (Author abstract modified)

158054 Erickson, Carlton K.; Graham, David T. Department of Pharmacology and Toxicology, School of Pharmacy, University of Kansas, Lawrence, KS 66044 Alteration of cortical and reticular acetylcholine release by ethanol in vivo. **Journal of Pharmacology and Experimental Therapeutics. 185(3):583-593, 1973.**

The effect of ethanol on spontaneously released acetylcholine (ACh) was studied in rabbits with cortical collecting cups and push - pull cannulas. The investigation was designed to examine the possibility that behavioral depression produced by acute doses of ethanol is the consequence of impaired central cholinergic transmission. In separate experiments in rats, ethanol, 4.5g/kg p.o.,increased total brain ACh and produced blood ethanol concentrations similar to those produced by an oral dose of ethanol that depressed free cortical ACh in rabbits. The results show that ethanol can depress the release of free ACh in selected areas of the cortex and reticular formation in rabbits. The depressed release may contribute to the acute behavioral intoxication produced by ethanol. 46 references. (Author abstract modified)

158182 Zivkovic, B.; Guidotti, A.; Costa, E. Laboratory of Preclinical Pharmacology, National Institute of Mental Health, Saint Elizabeths Hospital, Washington, DC 20032 On the regulation of tryptophan hydroxylase in brain. (Unpublished paper). Washington, D. C., NIMH, 1973, 22 p.

Level of tryptophan hydroxylase activity in brain homogenates of rats receiving chronic drug modification of serotonergic neuronal function was studied. It was found that: 1) reserpine increases tryptophan hydroxylase activity in cell bodies and nerve terminals of serotonergic neurons, while reserpine initiated tyrosine hydroxylase activation is present only in dopaminergic terminals and appears related to depletion of an inhibitory dializable factor; 2) pituitary adrenal activation may play an important role in the regulation of tryptophan hydroxylase; 3) tryptophan hydroxylase activity is decreased in rats receiving either a combined treatment with pargyline and reserpine or chronic treatment with LSD; 4) since both treatments produce hyperstimulation of serotonergic neuronal postsynaptic receptors, tryptophan hydroxylase may also be regulated through a feedback interneuronal loop which is triggered through persistent occupancy of serotonergic receptors by an agonist. 30 references. (Author abstract modified)

158274 Goldstein, M.; Battista, A. F.; Ogawa, M.; Anagnoste, B.; Fuxe, K.; Ungerstedt, U. New York University Medical Center, New York, NY 10016 The effect of m-tyrosine on tremor and on abnormal movements in monkeys with ventromedial tegmental lesions. 5th International Congress on Pharmacology, 1972. (p. 84).

The effect of m-tyrosine m-T on tremor and on abnormal movements in monkeys with ventromedial tegmental lesions was investigated. In monkeys with ventromedial tegmental lesions was investigated. In monkeys with unilateral ventormedial tegmental (VMT) lesions exhibiting hypokinesia and tremor, the administrationof m-t induces a transient relief of tremor. The m-T induced relief of tremor is less effective than the Dopa induced relief of tremor. The m-T-induced relief of tremor is potentiated by treatment of the monkeys with a peripherally acting Dopa decarboxylase inhibitor (DDCI) or with a monoamine oxidase inhibitor. In rats with unilateral lesions in the nigro-neostriatal pathway the administration of m-T in combination with a peripherally acting DDCI causes a marked rotation of the rats towards the intact side. The administration of large doses of Dopa or a peripherally acting DDCI plus Dopa to monkeys with VMT results in a relief of the tremor with a concomitant development of abnormal movements. m-T protects the mon-

keys from Dopa-induced abnormal movements. It is postulated that the Dopa induced hyperkinesias are caused by the stimulation of the dopamine receptors, and that m-tyramine formed from m-T competes with dopamine for the receptors thereby weakening the activity of the latter. Thus, m-T might be effective in treatment of Dopa-induced hyperkinesias. (Author abstract)

158279 Rudzik, Allan D.; Hester, J. B.; Tang, A. H.; Straw, R. N.; Friis, W. CNS Research, The Upjohn Co., Kalamazoo, MI 49001 Triazolobenzodiazepines, a new class of central nervous system-depressant compounds. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 285-297).**

The pharmacological activity of a new class of central nervous system depressant compounds, triazolobenzodiazepines, are reported and activities are compared with that of diazepam (DZ). Addition of the five membered heterocyclic ring to the benzodiazepine moiety of the compounds reported resulted in an increased potency and marked differences in the spectrum of activity of the compounds. U-31,889 most closely resembles DZ in its profile of effects; U-33,030 was the most active compound of the group; U-31,957 and U-35,005 differ significantly in profiles of activity from DZ; U-31,957 has activity equivalent to DZ on antianxiety end points but is weakly active on muscle relaxant and depression end points; U-35,005 resembles U-31,957 in activity but possesses potent muscle relaxant activity in cats but not in mice. All the compounds have a low acute toxicity in laboratory animals. 21 references. (Author abstract modified)

158290 Killam, E. K.; Matsuzaki, M.; Killam, Keith F. Dept. of Pharmacology, School of Medicine, Univ. of California, Davis, CA 95616 Effects of chronic administration of benzodiazepines on epileptic seizures and brain electrical activity in Papio papio. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 443-460).**

Problems of maintaining seizure control with benzodiazepines administered chronically at stable dose levels was investigated using Papio papio as the animal model of photomyclonic epilepsy in man. Individual threshold doses for the control of epileptic responses to flashing light were determined in seven baboons for diazepam and 7-nitro-5-(2-chlorophenyl)-1,3-dihydro-2H-1,4-benzodiazepine-2-one. At threshold doses both compounds failed to maintain seizure control when administered daily but seizures were suppressed upon raising the daily dose level. In some animals escape was evidenced and doses had to be increased several times. If initial doses were higher, animals failed to show the adaption to drug. A brief rebound phenomenon occurred in some animals during the postdrug periods. Spontaneous and evoked electrical activity changed only slightly at the low dose levels. There were no behavioral changes with the drugs. 7 references. (Author abstract modified)

158293 Monachon, M.-A.; Jalfre, M.; Haefely, W. Dept. of Experimental Medicine, F. Hoffmann-La Roche & Co., Ltd., CH-4002 Basel, Switzerland A modulating effect of chlordiazepoxide on drug-induced PGO spikes in the cat. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 513-529).**

Ponto - geniculo - occipital (PGO) spikes induced by the central monoamine depletor Ro 4-1284 (a benzoquinolizine) and the inhibitor of tryptophan hydroxylase, p-chlorophenylalanine were recorded in the lateral geniculate bodies in curarized cats. Chlordiazepoxide (CDP) was observed to increase the number of the PGO spikes. An inhibitory influence of CDP on the noradrenergic system of the locus coeruleus is postulated since the effect of CDP resembles that of inhibitors of noradrenaline synthesis and of lesions of the locus coeruleus. A cholinergic mechanism seems also to be implicated in the effect of CDP on PGO spikes since the latter was blocked by atropine sulfate. The modulating effect of CDP on PGO spikes seems to be mediated by structures in the limbic system and the hypothalamus: lesions in either the septum, the amygdala or the medial forebrain bundle prevented the increase of PGO spikes induced by the benzodiazepine. 15 references. (Author abstract modified)

158295 Barnett, Allen; Fiore, John W. Dept. of Pharmacology, Biological Research, Schering Corp., Bloomfield, NJ 07003 Acute tolerance to diazepam in cats. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 545-557).**

Acute tolerance to diazepam (DP) was studied in cats and the possibility of a cross tolerance to methocarbamol or to phenobarbital was also examined. It was determined that there is no tolerance when DP is administered i.v. at intervals of 15min. or less but there is tolerance at 1 and 2

hour intervals. Tolerance is probably due to the formation of a less potent metabolite, especially N-desmethyl diazepam. Cross tolerance to either methocarbamol or phenobarbital was not seen in DP tolerant cats. 12 references.

158316 Trabucchi, M.; Cheney, D.; Hanin, I.; Costa, E. Laboratory of Preclinical Pharmacology, National Institute of Mental Health, Saint Elizabeths Hospital, Washington, DC 20032 Involvement of brain cholinergic mechanisms in the action of chlorpromazine. (Unpublished paper). Washington, NIMH

Experiments conducted to test whether the action of chlorpromazine, a neuroleptic which increases the turnover rate of dopamine, is associated with a change in the activity of brain cholinergic neurons are described. In mice, the injection of 5mg/kg i.p. of the drug (5 times and twice daily) increased the turnover rate of brain acetylcholine (TRC) from 0.36 to 2.0micromoles/g/hr. Atropine (50mg/kg i.p.,30 minutes before) reduced the TRC only slightly (0.27 micromoles/g/hr), whereas diazepam (20mg/kg i.p.,30 minutes before) reduced the TRC substantially (0.14 micromoles/g/hr). Findings suggest that the effects of chlorpromazine can be related to neither decrease in motor activity nor to its anticholinergic action. The possibility that chlorpromazine action on brain dopaminergic receptors can explain the increase of TRC is discussed. 22 references. (Author abstract modified)

158475 Katsuragi, Takeshi; Ozawa, Hikaru. Department of Chemical Pharmacology, Pharmaceutical Institute, Tohoku University, Sendai, Japan Potentiating mechanism by ouabain on contractions of guinea-pig vas deferens to 5-HT and other amines. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):17, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the potentiation by ouabain to the agonists are norepinephrine, isoproterenol, acetylcholine, carbachol, histamine, tyramine and 5-hydrotryptamine on the contractile systems of the guinea pig vas deferens was reported. The short time exposure to ouabain nonspecifically potentiated the response to these agents. The response of the tissue to 5-HT consisted of an initial tonic and a later rhythmic component. The remarkable enhancement of the rhythmic phase by ouabain was prevented by pretreatment with reserpine, cocaine and phentolamine; the rhythmic one was never suppressed by addition of methylsergide. After the denervation, rhythmic phase disappeared, but the tonic one increased. It is suggested that the rhythmic and tonic phase obtained may respectively indicate the pre and postsynaptic effect of 5-HT on the vas deferens. It is concluded that the potentiating phenomena could be induced by dual effects of ouabain which were the increase of catecholamine release and the alteration of the state of the postsynaptic membrane. (Author abstract)

158476 Araki, Kiyoshi; Gomi, Yasuo. Department of Pharmacology, Faculty of Pharmaceutical Sciences, Kanazawa University, Kanazawa, Japan Augmentation of pressor response to catecholamine by N, N-dimethylethylenediamines. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):18, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, blood pressure responses to graded doses of norepinephrine, epinephrine and tryramine measured in normal, reserpinized or pithed rats before and after cocaine, diphenhydramine, tripelennamine, N,N-dimethyl-N',N'-dibenzylethylenediamine (I), N1,N1-dibenzyl-N2, N2-dimethyl-1,2-propane-diamine (II) and eight other N, N-dimethylethylenediamine derivatives were reported. In normal rats, 11 compounds out of 13 test compounds increased the duration of pressor responses induced by norepinephrine and epinephrine. The potentiation by cocaine and tripelennamine were marked to norepinephrine than to epinephrine. The tyramine induced pressor responses were decreased or abolished by cocaine and tripelennamine, but these responses were increased by I and II. In reserpinized rats, cocaine, tripelennamine, I and II increased slightly the pressor response to epinephrine, but these potentiations were not dose dependent. The results suggest that I and II potentiate the blood pressure responses to pressor amines by affecting peripheral sites(s), but the mode of action of I and II seems to be different from that of cocaine and tripelennamine. (Author abstract)

158477 Tsujimoto, Akira; Dohi, Toshihiro; Kojima, Sekizo. Department of Pharmacology, Hiroshima University School of Dentistry, Hiroshima, Japan Possible mechanism of pilocarpine potentiation of hexobarbital hypnosis in mice. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):27, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effect of pilocarpine on brain levels of hexobarbital and hypnosis was reported. The injection of pilocarpine increased the sleeping time of mice. In pilocarpine treated mice, marked increase in brain and plasma levels of hexobarbital over controls was found. These levels were increased significantly by tremorine and slightly by arecoline. Brain and plasma levels at the time of recovery from hypnosis in these drugs treated mice did not differ from the values in control mice. The activity of hepatic hexobarbital metabolizing enzyme in pilocarpine treated mice was found to be markedly decreased. Arecoline and tremorine did not affect the activity. The results suggest that the hypnotic potentiating action of pilocarpine results in part from its inhibitory effect on hepatic hexobarbital metabolism. (Author abstract)

158478 Yanagi, Yoshikazu; Kitagawa, Sumio. Takarazuka Research Laboratory, Sumitomo Chemical Co., Ltd., Takarazuka, Japan Studies on in vivo metabolism of nimetazepam (S-1530) in mice & rats. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):35, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the metabolism of nimetazepam, 1-methyl-7-nitro-5-phenyl-1,3-dihydro-2H-1,4-benzodiazepin-2-one, in vitro was compared with that of nitrazepam and the species difference between mice and rats was discussed. Nimetazepam and nitrazepam were incubated with 8,000 x g supernatant fractions prepared from mice and rats livers. Under aerobic conditions, nimetazepam was demethylated at N-1 position and hydroxylated at C-3 position. The species difference was observed in the 1-N-demethylation. The reaction rate of the 1-N-demethylation was about twice as rapid in mice as in rats, although the 3-hydroxylation proceeded at a nearly equal rate in both species. Nitrazepam was also hydroxylated at C-3 position, but this reaction proceeded very slowly. Under anaerobic conditions, the nitro group at C-7 position of nimetazepam and nitrazepam was reduced to the amino group at a nearly equal rate. There was little observed species difference in this reaction. The results showed a good agreement with ones revealed in the metabolic studies in vivo. (Author abstract)

158482 Fukui, Kuniaki; Takagi, Hiroshi. Department of Pharmacology, Faculty of Pharmaceutical Sciences, Kyoto University, Kyoto, Japan The effects of analgesics and neuroleptics on the release of monoamine metabolites into the lateral cerebral ventricle of rabbit. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):55, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effects of analgesics and neuroleptics on the release of monoamines from the central monoaminergic systems were reported. The anterior horn of one lateral ventricle was perfused in unanesthetized rabbit and the content of homovanillic acid (HVA), a DA metabolite, in the effluent was fluorometrically measured. With 1 hourly sampling, the concentration of HVA was maintained relatively constant throughout the experiment. Stimulation of the substantia nigra for 10 min caused an increment in the HVA content of the effluent lasting for 1.5hrs or more, while stimulation of the reticular formation near the substantia nigra did not cause any change in HVA content. The intravenous administration of morphine caused a dose dependent increase in the HVA content in the effluent. Tetrabenazine and chlorpromazine caused a marked increase in the HVA content. (Author abstract)

158483 Matsumoto, Shigenobu. Department of Pharmacology, School of Medicine, Keio University, Tokyo, Japan Studies on the effects of pentazocine on the respiration of rabbits. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):56, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effects of pentazocine on the respiration of rabbits were reported. When the dose of morphine (M) was increased, an increased dose of pentazocine was required to produce respiratory antagonism although the rate required to increase was smaller than naloxone (NX) and larger than nalorphine (NL). Pentazocine itself produced a significant respiratory depression with moderate doses and larger doses of pentazocine led to death of the rabbits. Respiratory depression produced by pentazocine was completely antagonized by NL. It was noted that the death produced by pentazocine was not relieved even by relatively large doses of NL. (Author abstract)

158484 Oka, Tetsuo; Hosoya, Eikichi. Department of Pharmacology, School of Medicine, Keio University, Tokyo, Japan Relationship between morphine and 'candidate' neurohumoral transmitters in the brain (report 7). **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):56, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the relationship between morphine and candidate neurohumoral transmitters in the brain was reported. It was demonstrated that methadone and pethidine produced a significant decrease in SLMA of rats. The administration of p-chlorophenylalanine 48 hours before the injection of narcotic analgesics strongly antagonized the decrease in SLMA both by pethidine and by methadone. It is suggested that the depressant response of rats to either pethidine or methadone, like that of morphine, may depend on the release of 5-hydroxytryptamine by these narcotic analgesics. Caffeine produced a prominent increase in SLMA which was potentiated by pretreatment of rats with either scopolamine or atropine, inhibited with alpha-methyl-p-tryrosine and unaffected with either methscopolamine or methyl atropine. The caffeine induced increase in SLMA is produced by a different mechanism from that induced by morphine. (Author abstract modified)

158487 Kameyama, Tsutomu; Shigehisa, Tsuyoshi. Department of Chemical Pharmacology, Faculty of Pharmaceutical Sciences, Meijo University, Nagoya, Japan Auditory sensitivity in the rat as affected by imipramine in relation to initial sensory activity and spontaneous motor activity. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):63, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effects of an antidepressant on sensory activity investigated in (innately) sensitive, normal and less sensitive animals were reported. Rats, Sprague-Dawley and Wistar strains, were divided into three groups according to their absolute auditory thresholds, as measured by a psychophysical method of limits using an operant conditioning technique. Imipramine was administered three times at 24 hr intervals and each rat was tested at 30 min, 4, 8 and 12 hr after each administration. Rats with low initial sensitivity and low initial motor activity showed the greatest increase in sensitivity after each administration, as compared with rats with high or medium initial sensitivity, as a function of dose and interval conditions. A dose response curve was obtained at each level of interval, and ED50 was predicted in each type of rat, in terms of initial sensitivity, motor activity and strain. (Author abstract modified)

158497 Yamasaki, Michiyo; Tanabe, Kyoko; Kimishima, Kenjiro. Department of Pharmacology, Tottori University School of Medicine, Yonago, Japan Central nervous action of 6-hydroxydopamine. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):69, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the central nervous action of 6-hydroxydopamine (6-OHDA) was analyzed in mice, rats and rabbits. An intraventricular injection of 6-OHDA produced sedative states and catalepsy in mice and rabbits. Conditioned avoidance response of mice was slightly inhibited by intraperitoneal injection of 6-OHDA. By the pretreatment using 6-OHDA, analgesic and antiphlogistic actions of morphine were inhibited. The pretreatment of 6-OHDA did not influence the results of various convulsive tests. Immediately after intraventricular injection, 6-OHDA produced the transient arousal pattern in spontaneous EEG which was followed by high amplitude slow waves. However, the arousal response to reticular stimulation was not affected. (Author abstract)

158501 Nose, Takashi; Takagi, Hiroshi. Biological Research Laboratory, Tanabe Seiyaku Co., Ltd., Osaka, Japan Pharmacological studies on mechanism of antiparkinsonian drugs (report 2): elevation of striatal homovanillic acid content by oxotremorine and its modification by Pharmacological studies on mechanism of antiparkinsonian drugs (report 2): elevation of striatal homovanillic acid content by oxotremorine and its modification by anticholinergics. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):71, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the mechanism of the increase in homovanillic acid (HVA) content caused by oxotremorine (OT) was investigated. Subcutaneous injection of OT caused a dose dependent increase in the HVA content in the rat corpus striatum. Pretreatment of atropine sulphate reduced the OT induced increase in HVA content. Neither atropine methylbromide, mecamylamine hydrochloride nor hexamethonium chloride reduced the OT induced HVA increase. DL-alpha-methyl-p-tyrosine reduced the contents of rat brain DA and noradrenaline (NA) to about 35% of those of controls. OT did not modify these changes. Nialamide produced an increase in both DA and NA contents in the rat brain, and OT potentiated the increases in the amines induced by nialamide. The results suggest that OT increases

the syntheses of DA indirectly via its stimulant action on central cholinergic receptors which are blocked by atropine sulphate. (Author abstract)

158505 Nakai, Yoshihisa; Nagase, Tsuyoshi; Takaori, Shuji. Department of Pharmacology, Faculty of Medicine, Kyoto University, Kyoto, Japan Electrophysiological studies on action of psychotropic drugs in relation to brain monoamines. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):78, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effects of psychotropic drugs were examined in relation to brain monoamine levels. Freely moving cats and rats with chronically implanted electrodes were employed and EEGs, EOG and EMG were simultaneously recorded. In cats, diazepam inhibited both slow wave sleep (SWS) and parasleep (PS), and the EEG recovered to almost control level within 24 hrs after injection. In rats, diazepam did not affect total PS time while there was observed a slight increase in SWS time. Injection of imipramine produced a marked increase in SWS and decrease in PS. When imipramine was injected repetitively for 1 week, occurrence of PS was also inhibited as observed in cases of a single injection. A marked decrease in PS and SWS was observed 48 hrs after injection of p-chlorophenylalanine (pCPA), but increase in PS time was not observed during the few days following pCPA injection. (Author abstract modified)

158506 Tanaka, Chikako; Kimura, Mieko; Fujita, Yuzo; Shimada, Shozo. Department of Pharmacology, Faculty of Medicine, Kyoto University, Kyoto, Japan Effect of amantadine on serotonin metabolism in rat brain. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):78, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, biochemical data were presented showing that amantadine affects serotonin metabolism in rat brain. Male Wistar rats were given amantadine in doses of 50 and 100mg/kg. 5-Hydroxytryptamine (5-HT) content, 5-hydroxyindoleacetic acid (5-HIAA) content, 5-hydroxtryptophan (5-HTP) decarboxylase activity and monoamine oxidase (MAO) activity were estimated in the brain. No significant changes were found in the serotonin level or the 5-HTP decarboxylase activity with amantadine treatment. One hr following amantadine 100mg/kg injection, 5-HIAA content and MAO activity were slightly reduced. MAO inhibition (Nialamide 100mg/kg) induced 5-HT accumulation in the brain was enhanced by amantadine treatment. These findings indicate that amantadine affects not only the central adrenergic but also the serotonergic nervous system. (Author abstract)

158507 Kimura, Kiyoshi; Ukai, Yojiro; Ohata, Katsuya; Takagi, Hiroshi. Nippon Shinyaku Research Laboratories, Kyoto, Japan The facilitatory effect of electrical stimulation of the brain stem reticular formation on the reserpine induced spike waves recorded from the medial nucleus trapezoides in the rabbit. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):79, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the facilitatory effect of electrical stimulation of the brain stem reticular formation on the reserpine induced spike waves recorded from the medial nucleus trapezoides in the rabbit were reported. It was found that amplitude and grouping of these spike waves were markedly augmented by applying the high frequency square waves to the midbrain reticular formation (mRF). The facilitatory effect of the electrical stimulation of the mRF on the generation of spike waves in the Trap. m. after reserpine was markedly suppressed by 5-hydroxytryptophan but not L-Dopa. Considerably wide parts of the mRF and pontine reticular formation (pRF) were found to be responsible for the facilitatory effect. The facilitatory influence from the mRF and pRF on the generation of TR spike waves was observed only at the period of paradoxical sleep episodes or following the administration of reserpine. It is suggested that the phenomenon is a kind of gating mechanism of which circuit is always suppressed by the serotonergic system. (Author abstract)

158509 Murayama, Satoshi; Ikeda, Shigeru; Yajima, Takashi. Department of Pharmacology, Chiba University, Chiba, Japan Effects of psychotropic drugs on segmental spinal reflex and spino-bulbo-spinal (SBS) reflex. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):82, 1973.**

At the 46th meeting of the Japanese Pharmacological Socitey, the effects of chlorpromazine, diazepam and pentobarbital on mono (MSR), polysynaptic (PSR) and spino-bulbo-spinal (SBS) reflexes were investigated in decerebrated cats. Chlorpromazine depressed both MSR and PSR. Initial facilitation influence of chlorpromazine on SBS reflex was followed by

decrease in size of the potential. Diazepam depressed MSR, PSR and SBS reflexes; SBS reflex was more sensitive to the drug. The depressed reflexes were restored by picrotoxin, but not so remarkably recovered by strychnine. Pentobarbital also depressed all reflexes, the reflexes were recovered by strychnine and slightly restored by picrotoxin. Crossed PSR and SBS reflexes were also depressed by above described central depressant drugs. It is suggested that SBS reflex is apparently sensitive to depressant effect of diazepam, comparing with the effects of chlorpromazine and pentobarbital. (Author abstract modified)

158511 Nakagawa, Kazuo; Naito, Katsumi; Kuriyama, Kinya. Department of Pharmacology, Kyoto Prefectural University of Medicine, Kyoto, Japan Effect of Xanthinol nicotinate on metabolism of brain cyclic AMP and metabolism in electrically stimulated cerebral tissue. **Japanese Journal of Pharmacology (Kyoto). 23:84, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effect of xanthinol nicotinate (X-N) on metabolism of brain cyclic AMP and metabolism in electrically stimulated cerebral tissue was studied. In vitro additions of X-N showed significant inhibitory effects on the phosphodiesterase activity in the mouse cerebral cortex without affecting the adenyl cyclase activity. While the oxygen uptake, lactic acid formation and inorganic phosphate content in the electrically stimulated (ES) cortical slices from mouse cerebrum were invariably decreased by the addition of X-N, no such changes were detected in non-ES slices. The X-N had no significant effects on the contents of Na ion and K ion in the cerebral slices with and without ES. Theophylline showed similar effects as X-N on the cyclic AMP metabolism in the brain and the metabolism underlying ES slices from the cerebral cortex. Results reveal that X-N is capable of increasing the cyclic AMP content in the brain due to an inhibition of phosphodiesterase activity and of inhibiting the metabolism in the ES cerebral tissues. It is concluded that the changes are unlikely to be related to basic factors responsible for differential pharmacologic effects of X-N and theophylline. (Author abstract)

158512 Takenoshita, Mitsugu; Shimizu, Hirotoshi; Tanaka, Shozo. First Department of Pharmacology, Kumamoto University Medical School, Kumamoto, Japan Inhibitory effect of methylxanthines on the adenosine-stimulated formation of cyclic AMP in brain slices. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):91, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effect of xanthine derivatives, such as theophylline, caffeine and theobromine, on the adenosine stimulated accumulation of cyclic AMP in brain slices was examined using pulse labeling method. Every xanthine derivative investigated inhibited the accumulation of cyclic AMP elicited with adenosine at optimal concentration. A series of dose response activity indicated that theophylline had the strongest inhibitory effect, followed by theobromine and caffeine, on the accumulation of adenosine elicited cyclic AMP in brain slices. The order of the inhibitory potency was not in parallel with that of the excitory effect of xanthine derivatives on the central nervous system. (Author abstract)

158513 Kaneto, Hiroshi; Tsuchie, Fumiyo; Miyagawa, Hidekazu. Department of Pharmacology, Faculty of Pharmaceutical Sciences, Nagasaki University, Nagasaki, Japan Attempt to evaluate the physical dependence liability of psychotropic drugs in mice (2). **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):95, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, an evaluation of the physical dependence liability of some psychotropic drugs in mice was reported. Mice were made dependent on barbital-Na by treatments with daily increasing doses, twice daily for 10 days, and applied for the following tests: 1) single dose suppression; and 2) substitution. Drugs included: diazepam, chlordiazepoxide, oxazolam, nitrazepam, chloxazolazepam, EGYT-341, atraxene, doxepin, amitriptyline, chlorpromazine, TPN-12, meprobamate, morphine, phenobarbital and delta9-THC. Physical dependence liability of the test drugs was evaluated, and the types of dependence, namely morphine, barbiturate or other type, were distinguished. It was concluded that the dependence liability of the drugs can be detected in mice by the two defined methods. (Author abstract)

158514 Hirota, Kazuo; Nakano, Masayuki; Kawahara, Seiichi. Chemical Pharmacology, Aburahi Laboratories & Co., Ltd,. Koka-cho, Shigaken, Japan Study on the absorption and excretion of reserpine and its derivative, bietaserpine. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):96, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the absorption and excretion of bietaserpine (N-diethylaminoethyl-reserpine) was compared with reserpine in rats. Results show that bietaserpine is readily absorbed from the small intestine. Passage of the compound from the stomach to the intestine is 70% of the dose in 30 minutes. The blood concentration of bietaserpine after a single oral dose reaches a peak in 30 minutes and then decreases. From the fact that the blood level parallels the gastric emptying time, it is suggested that in the case of an oral administration the absorption rate limiting factor is the gastric emptying time. After a single oral administration of radioactive reserpine about 70% of the radioactivity is excreted in the feces and 25% in the urine; after bietaserpine 61% is excreted in the feces and 10% in the urine. Excretion into the bile is less than one half of the amount in feces, showing that a part of the compound passes directly through the intestine without being absorbed. (Author abstract)

158516 Ogawa, Eiichi; Suzuki, Shiro; Tsuzuki, Hiroshi; Kawajiri, Mutsuko. Department of Pharmacology, School of Medicine, Gunma University, Maebashi, Japan Experimental studies on the distribution and excretion of 203Hg-ethylmercury chloride. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):135, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, 203Hg-ethylmercury chloride orally given to mice and rats, and its absorption, retention, excretion and distribution were reported. The absorption was fast after the oral administration as in the case of methylmercury. The daily decrement curve of the whole body retention represents the sum of two exponential functions in rats, but a single exponential function in mice. The distribution of 203Hg was determined for 3 days with mice and 7 days with rats after the oral administration. In rats, the highest radioactivity was found in the kidney followed by the blood, liver, spleen, pancreas and brain in descending order. In mice, the highest radioactivity was also found in the kidney. The daily excretion of 203Hg was high in feces and low in urine. In 3 day experiments with mice, the effective drugs eliminating 203Hg DL-penicillamine, 2-mercatopropionyl glycine. BAL, mercaptoacetic acid and thioethanol were found to increase 203Hg concentration in the brain. (Author abstract)

158570 Shih, Jean Chen; Geller, Edward; Costa, E.; Eiduson, Samuel. Neuropsychiatric and Brain Research Institutes, School of Medicine, UCLA, Los Angeles, CA 90024 Serotonin-binding proteins isolated by affinity chromatography. (Unpublished paper). Washington, DC, NIMH, 1973, 7 p.

Two serotonin binding proteins from synaptosomal membranes of the hypothalamus and spinal cord of rats were isolated using the technique of affinity chromatography and elution, with two drugs which pharmacological evidence suggests compete with serotonin for its receptor site. These drugs are lysergic acid diethylamine (LSD) and chlorimipramine (CIP). Since the two proteins had different electrophoretic mobilities and since the protein patterns were not changed by the order of elution, it is suggested that they are two different proteins, that the protein eluted by CIP may be presynaptic and that eluted by LSD may be located postsynaptically. Further, since 6-OH-dopamine did not alter protein concentration, the 5HT-binding proteins may not be located in the membranal system which is destroyed by 6-OH-dopamine. 5 references.

158768 Bradshaw, C. M.; Szabadi, E.; Roberts, M. H. T. Department of Psychiatry, University of Edinburgh, Morningside Park, Edinburgh EH10 5HF, Scotland The reflection of ejecting and retaining currents in the time-course of neuronal responses to microelectrophoretically applied drugs. **Journal of Pharmacy and Pharmacology (London). 25(7):513-520, 1973.**

The role of ejecting and retaining currents in determining the time course of neuronal responses to microelectrophoretically applied drugs (acetylcholine, glutamate, noradrenaline, 5-hydroxytryptamine, and mescaline) was investigated in cats. Comparing the parameters of excitatory responses to ejecting currents of successively increasing intensity, it was found that: 1) the response latency became progressively shorter; 2) the plateau became higher; and 3) the recovery time was prolonged. An increase in the intensity or duration of the preejection retaining current resulted in prolongation of the response latency and the latency to plateau, but did not alter the plateau itself. An increase in the intensity of the postejection retaining current reduced the recovery time of the response. 17 references. (Author abstract)

158769 George, A. J.; Leach, G. D. H. Postgraduate School of Studies in Pharmacology, University of Bradford, Bradford, Yorkshire BD7 1DP, England The effects of changes in ionic environment and modification of adrenergic function on the vascular responses to sympathomimetic amines. **Journal of Pharmacy and Pharmacology (London). 25(7):521-529, 1973.**

The responses to each of 4 sympathomimetic amines (200ng noradrenaline, 50 micrograms octopamine, 20 micrograms metaraminol, and 100 micrograms tyramine) were studied in the perfused rat mesentery preparation. Perfusion with Ca2+- and Mg2+-free solutions potentiated the responses to all 4 amines compared with control responses obtained during normal Krebs perfusion. Under perfusion, conditions using either normal Ca2+-or mg2t-free Krebs solution, nialamide and reserpine retained their characteristic effects on the responses to each amine. Cocaine and desipramine abolished the responses to tyramine but potentiated those to noradrenaline and metaraminol under all perfusion conditions. The responses to each of the amines were only antagonized by ouabain when Ca2+ ions were present in the perfusion solution. It is concluded that perfusion with Ca2+- and Mg2+-free solution interferes with the normal uptake mechanisms occurring in the adrenergic neuron. 31 references. (Author abstract)

158771 Tuck, J. R.; Punell, G. Department of Psychiatry, Karolinska Hospital, Karolinska Institutet, S-104 01 Stockholm, Sweden Uptake of (3H)5-hydroxytryptamine and (3H)noradrenaline by slices of rat brain incubated in plasma from patients treated with chlorimipramine, imipramine, or amitriptyline. **Journal of Pharmacy and Pharmacology (London). 25(7):573-574, 1973.**

Plasma taken from patients taking chlorimipramine, imipramine, or amitriptyline was incubated in slices of rat cerebral cortex to elucidate the effect of clinical doses on noradrenaline and 5-hydroxytryptamine (5-HT) neurons. Results agree with other findings where amitriptyline and imipramine were less potent on the 5-HT pump than chlorimipramine. In this case, only chlorimipramine produced a blockade of the 5-HT membrane pump, and the mean uptake of 3H-5-HT by the 5-HT membrane pump obtained after chlorimipramine roughly corresponded to a plasma concentration of 0.1micromoles. Imipramine and amitriptyline in clinical dosage predominantly inhibited the noradrenaline membrane pump. However, they were administered by different routes. Oral administration permits metabolism via the liver and may have a more pronounced effect of metabolites, whereas intramuscular injection initially by-passes the liver. Results demonstrate an inhibitory effect of chlorimipramine in clinical use of 5-HT neurons. 11 references. (Author abstract modified)

158773 Lake, N.; Yarbrough, G. G.; Phillis, J. W. Department of Physiology, Faculty of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada Effects of ethanol on cerebral cortical neurons: interactions with some putative transmitters. **Journal of Pharmacy and Pharmacology (London). 25(7):582-584, 1973.**

The effects of ethanol on cerebral cortical neurons was investigated in rats as well as interactions between it and presumptive neurohumoral agents in the cortex. Ethanol, when applied directly onto cerebral cortical neurons has a weak depressant or excitant action on neuronal activity. Moreover, it is an effective antagonist of biogenic amine induced depressions of neuronal firing in the cerebral cortex. These findings provide further support for the hypothesis that the depressant actions of amines on cerebral cortical neurons involve a calcium dependent mechanism. 7 references. (Author abstract modified)

158774 Nakamura, K.; Kuntzman, R.; Maggio, A.; Conney, A. H. Nippon Roche Research Centre, Kamakura, Japan Restoration of morphine analgesia in morphine-tolerant rats after the intraventricular administration of 6-hydroxydopamine. **Journal of Pharmacy and Pharmacology (London). 25(7):584-587, 1973.**

The effect on morphine analgesia in morphine tolerant rats of administration of 6-hydroxydopamine (6-OHDA) into lateral ventricle or into the ventromedial hypothalamic nuclei (VMH) or dorsomedial hypothalamic nuclei (DMH) areas of the brain was studied. It is concluded that the intraventricular administration of 6-OHDA restored the analgesic action of morphine in morphine tolerant rats, suggesting that the development of tolerance to morphine analgesia may be partly due to changes in the central noradrenaline neurons. 19 references. (Author abstract modified)

158775 Jonsson, John; Lewander, Tommy. Psychiatric Research Center, University of Uppsala, Ulleraker Hospital, S-750 17 Uppsala,

Sweden Effects of diethyldithiocarbamate and ethanol on the in vivo metabolism and pharmacokinetics of amphetamine in the rat. **Journal of Pharmacy and Pharmacology (London). 25(7):589-591, 1973.**

The effects of pretreatment of rats with the metabolite of disulfiram, diethyldithiocarbamate (DDC), or ethanol on concentrations of subsequently administered amphetamine in brain and plasma were investigated. Results showed that DDC, like disulfiram, inhibits the hydroxylation of amphetamine and increases concentrations in brain and plasma. Contrary to some recent findings, the data showing increased intensity and prolongation are best explained by increased tissue levels of amphetamine. This conclusion, however, does not rule out the suggestion that the stereotyped behavior is dependent on an intact dopaminergic transmission in the central nervous system. Ethanol also caused an increase in the concentrations of amphetatamine in the brain and plasma, in agreement with previous research. 11 references. (Author abstract modified)

159355 De Souza, S. W.; Adlard, B. P. F. Department of Child Health, University of Manchester, Manchester, England Growth of suckling rats after treatment with dexamethasone or cortisol: implications for steroid therapy in human infants. **Archives of Disease in Childhood (London). 48(7):519-522, 1973.**

In an investigation of growth of suckling rats after treatment with dexamethasone, immature rats were treated with a single dose (1mg/kg or 20mg/kg body weight). At both dose levels the subsequent growth of whole body, brain, and thymus was markedly impaired. Cortisol had smaller but similar effects. Results are discussed in the context of possible glucocorticoid therapy in newborn infants. 25 references. (Author abstract modified)

159368 Cloutier, G.; Weiner, N. Department of Pharmacology, University of Colorado School of Medicine, Denver, CO Further studies on the increased synthesis of norepinephrine during nerve stimulation of guinea-pig vas deferens preparation: effect of tyrosine and 6,7-dimethyltetrahydropterin. **Journal of Pharmacology and Experimental Therapeutics. 186(1):75-85, 1973.**

In a study of the increased synthesis of norepinephrine during nerve stimulation of guinea pig vas deferens preparation the effects of tyrosine and 6,7-dimethyltetrahydropterin were examined. Norepinephrine synthesis from tyrosine, but not from dihydroxyphenylalanine, is increased approximately 60% during intermittent stimulation of the hypogastric nerve of the vas deferens preparation of the guinea pig. The effect is at least partially abolished by addition of norepinephrine to the medium. Norepinephrine accumulation is not significantly affected by intermittent nerve stimulation. Kinetic analysis indicates that the effect of nerve stimulation on norepinephrine synthesis from tyrosine in the intact tissue is not competitively antagonized by either 6,7-dimethyltetrahydropterin (DMPH4) or tyrosine. The Km for tyrosine and that for DMPH4 are unaffected by nerve stimulation, whereas the Vmax for DMPH4 is increased approximately two fold and that for tyrosine is increased to a similar degree in the stimulated preparation. In contrast, the inhibitory effect of norepinephrine on tyrosine hydroxylase activity in the intact preparation is competitively antagonized by DMPH4. These results suggest that the enhanced synthesis of norepinephrine from tyrosine associated with nerve stimulation is not due to a reduction in end product feedback inhibition of tyrosine hydroxylase which is competitive with the pterin cofactor. 30 references. (Author abstract)

159369 Brownstein, Michael; Holz, Ronald; Axelrod, Julius. NIH, 9000 Rockville Pike, Bldg. 10, Room 2D47, Bethesda, MD 20014 The regulation of pineal serotonin by a beta adrenergic receptor. **Journal of Pharmacology and Experimental Therapeutics. 186(1):109-113, 1973.**

The regulation of pineal serotonin by a beta adrenergie receptor was examined in rats. During the day, serotonin levels in the pineal gland fall in vivo after administration of l-isoproterenol. l-Propranolol, a beta adrenergic blocking agent, reverses the fall in serotonin caused by isoproterenol. Phentolamine, an alpha adrenergic blocking agent, is without effect under similar circumstances. Inhibition of monoamine oxidase does not cause an increase in the level of serotonin over the course of 1 hour. l-Propranolol causes a rapid increase in the amount of serotonin in the pineal at night. The finding that serotonin N-acetyltransferase increases in response to beta adrenergic stimulation and that this rise can be prevented by beta adrenergic blockers is confirmed. The results suggest that the level of serotonin in the pineal is regulated by a beta adre-

nergic receptor via control of serotonin N-acetyltransferase activity. 14 references. (Author abstract)

159449 Baldessarini, Ross J.; Fischer, Josef E. Psychiatric Research Laboratories, Dept. of Psychiatry, Mass. General Hospital, Boston, MA 02114 Serotonin metabolism in rat brain after surgical diversion of the portal venous circulation. **Nature (London). 245(140):25-27, 1973.**

A study of the serotonin (5-hydroxytryptamine, 5-HT) metabolic pathway in rat brain, after surgical diversion of the portal venous circulation, to test the hypothesis that 5-HT derived from its precursor amino acids can accumulate in anomalous locations and may so displace other endogenous amines to act as a false neurotransmitter under certain circumstances is presented. Marked increases in concentrations of 5-HT and its metabolite 5-hydroxyindoleacetic acid in the brain were found. It is suggested that 5-HT, as well as other aromatic amines, may act as false neurotransmitters in neurones thus contributing to some of the abnormalities associated with clinical hepatic failure, and that levodopa (L-dopa) may exert its beneficial effects in such patients partly by its conversion to dopamine, which might then displace the pathological false transmitters from sites including neurones which normally contain catecholamines. 23 references.

159483 Iuliucci, John Domenic, Temple University, Philadelphia, PA Contributing pharmacologic factors in morphine-induced fetal malformations (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-18689 HC$10.00 MF$4.00 192 p.**

Drug combination studies were employed to evaluate the influence of pharmacologic actions of morphine in the etiology of observed fetal anomalies, especially exencephaly and cryptorchidism. Results indicate that: 1) single doses of 200mg/kg or 300mg/kg of morphine reconfirm observed teratogenic effects of the drug when injected on either the eighth or ninth day of gestation in nontolorant CF-1 mice; 2) administration of procaine does not produce significant fetal anomalies when given alone or as pretreatment to morphine administration; 3) anticholinergic drugs, l-hysocyamine, scopolamine, and homatropine, are nonteragenic; 4) anticholinergic drugs given in combination with morphine increase incidence of exencephaly; 5) anticholinergic drugs given as pretreatment to morphine administration do not enhance skeletal fusions; and 6) pilocarpine, administered alone, does not result in fetuses with exencephaly or axial skeletal fusions; combination with morphine does not alter incidence of skeletal fusions but does increase incidence of exencephaly. (Journal abstract modified)

159565 Jobe, Phillip C.; Picchioni, Albert L.; Chin, Lincoln. Div. of Pharmacology, College of Pharmacy and Allied Health Professions, Northeast Louisiana Univ., Monroe, LA 71201 Role of brain 5-hydroxytryptamine in audiogenic seizure in the rat. **Life Sciences. 13(1):1-13, 1973.**

The effects of various treatments on brain 5-hydroxytryptamine (5-HT) levels in rats were compared to their effects on audiogenic seizure (AGS) intensity. Although some of these procedures also altered norepinephrine (NE) and dopamine (DA) concentrations, it was possible to observe differences in the depletion of these two catecholamines and 5-HT. The data indicated that depletion of brain 5-HT enhances AGS, whereas an increase in the concentration of this amine above physiologic levels diminishes the intensity of seizure. It appears that 5-HT exerts an inhibitory effect in the brain which limits spread of the seizure discharge. Thus, depletion of this amine disrupts inhibitory activity, allows mor efficietn spread of seizure activity in the brain and increases severity of AGS. 18 references. (Author abstract)

159566 Dowson, J. H. Department of Psychiatry, Royal Edinburgh Hospital, Edinburgh 10, Scotland Animal models for an enzymic blood-brain barrier mechanism for therapeutically administered L-DOPA. **Life Sciences. 13(1):23-29, 1973.**

Tissue slices from three brain regions of the rat and cat were incubated in a medium containing L-DOPA and nialamide, and studied by the formaldehyde - fluorescence method. Unlike the rat brain capillary walls, which showed a marked increase in fluorescence due to uptake of L-DOPA and subsequent dopamine formation and accumulation, the capillary walls of the cat brain samples did not show evidence of dopamine accumulation. The nature of a blood - brain barrier to L-DOPA in man is discussed with regard to this finding. 8 references. (Author abstract)

159567 Camjanovich, Robert P.; MacInnes, James W. Institute for Behavioral Genetics, University of Colorado, Boulder, CO 80302 Fac-

tors involved in ethanol narcosis: analysis in mice of three inbred strains. **Life Sciences (Oxford, England). 13(1):55-65, 1973.**

Effects of genotype and dose on the time of onset of ethanol induced sleep, as measured by fall time, and on the length of sleep in mice of three inbred strains is studied. Relationships among genotype, dose and the blood ethanol levels at time of fall and awakening are also investigated. The sleep time dose response curves are linear for the dose range tested, with no significant linear correlation between dose and blood ethanol level at awakening. Between strain comparisons showed significant differences in rate of ethanol clearance from the blood, and differences in tissue sensitivity to ethanol among the strains were demonstrated. Data suggest that the major factor influencing sleep time is blood alcohol clearance, reflecting differences in alcohol metabolic rates. 12 references. (Author abstract modified)

159569 Pong, Schwe F.; Graham, Lewis T., Jr. Institute of Psychiatric Research, Indiana University Medical Center, Indianapolis, IN 46202 Effect of 6-hydroxydopamine on dark adaptation in the rat retina. **Life Sciences. 13(1):15-21, 1973.**

Administration of 6-hydroxydopamine intravitreously to light - adapted rats appears to prevent the recovery of retinal sensitivity during subsequent dark adaptation through its interaction with the photochemical mechanisms. Results tend to support the hypothesis that the toxicity of 6-HD is mediated through the binding of its oxidation products with nucleophilic groups of biological macromolecules. 27 references. (Author abstract)

159654 Crofford, M.; Smith, A. A. Departments of Anesthesiology and Pharmacology, New York Medical College, NY 10029 Growth retardation in young mice treated with dl-methadone. **Science. 181(4103):947-949, 1973.**

Growth retardation effects of direct methadone injection in newborn Swiss-Webster mice were investigated. Half of each litter of newborn mice of both sexes were injected with a single dose of methadone; the remaining half of the litter were treated with a saline solution. The dl-methadone treated mice showed relative failure to gain weight which became more pronounced. Litters given dl-methadone, four milligrams per kilogram, grew normally. Concomitant treatment with naloxone, 10 milligrams per kilo, prevented growth inhibition. A weight deficit persisted in mice observed 6 weeks after cessation of methadone treatment. Growth was not retarded in young mice treated daily with methadone in dosage of only one mg/kg. Causes of the growth inhibition induced by methadone are unknown but several possible explanations are offered. Reference is made to a similar study conducted on salamanders. 6 references. (Journal abstract modified)

159816 Estevez, Vicente Santiago. University of Houston Metabolism of some psychoactive compounds. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-15708 HC$10.00 MF$4.00 127 p.**

The uptake and metabolism of certain psychoactive drugs were studied in monkeys and rats. It was found that 3H-N,N-dimethyltryptamine (DMT) exhibits a very fast rate of metabolism with most enzymatic reactions occurring in the brain. Comparative studies of 3H-2,5-dimethoxy-4-methylamphetamine (DOM) and 3H-2,5-dimethoxy-4-ethylamphetamine (DOET) indicated that their activity is due to their unchanged form. Rats metabolize DOM faster than monkeys and DOET is metabolized slower than DOM. 3H-delta9-tetrahydrocannabinol (delta9-THC) accumulated in certain areas of squirrel monkey brains, while comparison with rhesus monkeys showed that the latter metabolized the drug at a slower rate. Inhibition studies in rats produced increases of the drug in the brain. Repeated administration of delta9-THC resulted in induction of the hepatic microsomal enzymes. Ethanol caused elevation in delta9-THC uptake in brains, and formation of a pyschotomimetic metabolite after administration of 11-hydroxy-delta9-THC is postulated. (Journal abstract modified)

159822 Schmidt, Elena Caryn. Columbia University Pathobiological mechanisms of antidepressant and antipsychotic drug toxicity. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-16242 HC$10.00 MF$4.00 393 p.**

The antidepressants, imipramine and tranylcypromine, and the antipsychotic, chlorpromazine, were administered to a larval dipteran, Sciara coprophila, and assessment made of cell damage to the salivary glands. Phosphorylation was affected by the drugs to varying degrees depending upon length of exposure to labelled

phosphate and the drug, whereas acetylation remained unchanged in all three. Biochemical measurements of DNA, RNA, and protein content were performed following alkaline extraction of control and drug treated salivary gland homogenates. DNA and RNA content were not altered by drug treatment, whereas protein content exhibited a slight decrease in glands treated with imipramine and chlorpromazine, but not with tranylcypromine. Finally, at the electron microscope level, drug induced cellular injury was shown to be specific for the antidepressant or antipsychotic, its length of administration and the particular target subcellular organelle. (Journal abstract modified)

159826 Huang, Jen-Tzaw. University of Texas Graduate School of Biomedical Sciences at Houston Biochemical and pharmacological study of 2,5-dimethoxy-4-methylamphetamine (DOM, STP) and analogs. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-14602 HC$10.00 MF$4.00 97 p.**

Aspects of the biochemical and pharmacological activities of 2,5-dimethoxy-4-methylamphetamine (STP) and its analogs, potent hallucinogens, were studied. A comparison of STP and its amphetamine analogs was also made. It was found that: 1) STP, T-89, T-119 and T-122 at doses of 100 micromole/kg decreased the spontaneous locomotor activity, while amphetamine increased it in mice; 2) STP, T-89 and T-119 at this dose prolonged the sleeping time of barbital or pentobarbital in the mouse; 3) conversion of T-142 to STP showed that the former was not decarboxylated to STP in the mouse brain; 4) the pressor action of STP is apparently the stimulation of serotonin receptors in the cardiovascular system; 5) the respiratory effect, at 0.5mg/kg, shows inhibition for about 30 sec and a gradual return to normal, while at 1mg/kg, it causes a more prolonged effect on respiration and eventual its failure; 6) STP and its analogs have no effect on the concentrations of catecholamine or its rate of disappearance in mouse brain; 7) in state - dependent studies, STP acts differently from amphetamine on rat behavior. It was concluded that STP and its analogs have central as well as peripheral activities different from amphetamine. (Journal abstract modified)

159827 Lin, Chen-Ho. Loyola University of Chicago Studies on possible correlations between cholinesterase levels in mouse brain and behavior. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-16821 HC$10.00 MF$4.00 221 p.**

The whole brain levels of cholinesterase (ChE) in six genera of mice, as well as regional cholinesterase activity in Mus musculus SC1 and Dipodomys deserti mice, were determined. The whole brain enzyme activities of Mus musculus SC1 were also measured under various experimental conditions and drug induced states. Changes in brain cholinesterase levels during a 24 hour period (circadian rhythm) are reported in two genera of mice: Mus musculus SC1 and Dipodomys merriami. Altogether, the ChE activity as measured in whole brain, in the genetic study, studies on circadian rhythm, and drug effects, as well as in the various forms of environmental manipulations (isolation, aggregation, learning, and frustration) shed little light on the biochemical correlates of behavior. It appears that this enzyme system is operating within a considerably wide safety factor. A regional and differential analysis of ChE (AChE versus BuChE) may reveal a more specific and discrete effect of the system in response to various experimental conditions. (Journal abstract modified)

159828 Proakis, Anthony George. Purdue University Hyperglycemic mechanisms of certain phenothiazine analogs. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-15852 HC$10.00 MF$4.00 138 p.**

Hyperglycemic mechanisms of the phenothiazone analogs, chlorpromazine, mono-N-demethylchlorpromazine, fluphenazine, and methdilazine, were investigated in mice. It was found that all of these analogs increased blood sugar levels 1 hour after treatment at a dose of 3mg/kg ip. The elevation produced by chlorpromazine was greater than any of the others. Results of a variety of experiments indicated that initiation of hyperglycemia by phenothiazine analogs is mediated through epinephrine release from the adrenal medulla. However, the degree of blood glucose elevation is not related to the ability of a phenothiazine analog to release catecholamine, but is related to the degree of inhibition of insulin secretion from the pancreas. Furthermore, the liability of hyperglycemia is not greater with the more potent phenothiazine neuroleptics. It may be possible to develop a phenothiazine analog with potent CNS effects and no effect on carbohydrate metabolism. (Journal abstract modified)

160198 Leighty, Edith G. Battelle, Columbus Laboratories, 505 King Avenue, Columbus, OH 43201 Metabolism and distribution of cannabinoids in rats after different methods of administration. **Biochemical Pharmacology (Oxford). 22(13):1613-1621, 1973.**

The metabolism and distribution of cannabinoids was studied in rats after different methods of administration. Lungs of rats given 14C-delta9-tetrahydrocannabinol (delta-9-THC) by smoke inhalation showed a retention and metabolism of the cannabinoid, with further retention and metabolism by the liver. Only the liver showed retention and metabolism when 14C-delta9-THC was given by i.v. injection. The brain showed a greater penetration or retention of unmetabolized cannabinoid after smoke inhalation than after i.v. injection. 11-Hydroxy-delta9-THC was observed soon after smoke inhalation of 14C-delta9-THC in all of the organs and tissues except brain, and concentrations of a dihydroxy metabolite increased with time. A still unidentified metabolite was retained in the liver and spleen 15 days after an i.v. or chronic i.p. injection of 14C-delta8-THC or 14C-delta9-THC. 23 references. (Author abstract)

160200 Spratt, James L. Department of Pharmacology, College of Medicine, University of Iowa, Iowa City, IA 52240 Digitoxigenin metabolism by rat liver microsomes and its induction by phenobarbital. **Biochemical Pharmacology (Oxford). 22(13):1669-1671, 1973.**

Digitoxigenin metabolism by rat liver microsomes and its induction by phenobarbital were studied. Results indicated that digitoxigenin metabolism was contingent upon the concurrent presence of glucose 6-phosphate, NADP, and glucose 6-phosphate dehydrogenase. The velocity of total product formation for the complete system was linear over a 30 min period. Phenobarbital significantly increased the enzymatic specific activity of digitoxigenin metabolism, whereas the phenylbutazone pretreatment and the two control groups did not differ from one another. 24 references.

160202 Palmer, Douglas S.; French, Samuel W. Department of Pathology, University of British Columbia, Vancouver 8, British Columbia, Canada Effect of chlorpromazine on 3H-phenazine methosulfate uptake into various regions of rat brain and into subcellular fractions of brain and liver (in vitro). **Biochemical Pharmacology (Oxford). 22(13):1677-1680, 1973.**

The effect of chlorpromazine (CPZ) on 3H-phenazine methosulfate (3H-PMS) uptake into various regions of rat brain and into subcellular fractions of brain and liver was studied. Results indicated that brain 3H-PMS specific activity in CPZ treated rats never exceeded that of blood; none of the separate regions of the brain had uptake significantly different from that of whole brain. The percent of inhibition of 3H-PMS by CPZ was not significantly different in any one brain region compared with CPZ inhibition of 3H-PMS by whole brain. 3H-PMS uptake was also greater in the liver compared to the brain suggesting that a blood - brain barrier to PMS exists. It is concluded that CPZ might decrease the blood - brain barrier permeability to 3H-PMS. Findings suggested that CPZ inhibits active transport of 3H-PMS to the same extent in liver and brain. 32 references. (Author abstract)

160220 Smith, Donald F. Psychopharmacology Research Unit, Statshospitalet, DK-8240 Risskov, Denmark Diurnal variations of lithium clearance in the rat. **International Pharmacopsychiatry (Basel). 8(1-2):99-103, 1973.**

The rate of urinary excretion of lithium was studied in the morning (light) and in the evening (dark) in rats given lithium in the food or by intraperitoneal injection. Lithium clearance was highest during the night. The diurnal variation of lithium clearance was proportional to the diurnal rhythm of glomerular filtration rate. The role of glomerular filtration rate in the diurnal variation of lithium clearance is discussed. 14 references. (Author abstract)

160226 MacMillan, V.; Siesjo, B. K. Department of Medicine (Neurology), University of Toronto, Toronto, Canada The effect of phenobarbitone anaesthesia upon some organic phosphates, glycolytic metabolites and citric acid cycle-associated intermediates of the rat brain. **Journal of Neurochemistry. 20(6):1669-1681, 1973.**

In order to study the effect of phenobarbitone anesthesia upon the energy metabolism of the brain, organic phosphates, glycolytic metabolites and citric acid cycle intermediates were measured in rats anesthetized with 175-200mg/kg of phenobarbitone. Results were compared to those obtained in rats anesthetized with halothane or with nitrous oxide. An attempt was made to separate the effects of the phenobarbitone anesthesia from those caused by the accompanying intracellular alkalosis by exposing one group

of animals to hypercapnia of such a degree that normalization of the intracellular pH was achieved. Phenobarbitone anesthesia did not alter the tissue concentrations of adenosine tryphosphate (ATP), ADP or AMP, but led to a moderate increase in the phosphocreatine concentration. There was a decrease in the tissue concentrations of all measured substrates from pyruvate and onwards. The results indicate that phenobarbitone leads to a primary inhibition of glycolysis, which cannot be related to detectable changes in ATP, ADP or AMP. The resulting lowering of the tissue concentrations of a number of metabolic acids may be part of the explanation why barbiturate anesthesia is associated with an intracellular alkalosis. 26 references. (Author abstract modified)

160457 Neff, N. H.; Yang, H.-Y. T.; Goridis, C.; Bialek, D. Laboratory of Preclinical Pharmacology, NIMH, Saint Elizabeths Hospital, Washington, DC 20032 The metabolism of indolealkylamines by type A and B monoamine oxidase of brain. (Unpublished paper). Washington, D.C., NIMH, 1973, 15 p.

The existence of multiple forms of monoamine oxidase in most mammalian tissues was investigated, as well as the contention that they can be characterized by their sensitivity to inhibitor drugs and specificity for substrates. Both hypotheses were confirmed in vivo and in vitro through experiments with the rat brain. It was found that serotonin is deaminated in vivo and in vitro by type A enzyme. Tryptamine is deaminated in vitro by type A and B enzyme, but in vivo it is deaminated primarily by A enzyme. Therefore, blocking type A enzyme with a drug such as clorgyline should profoundly alter the metabolism of the indolealkylamines of the brain, while blocking type B enzyme should have little effect. It appears, however, that serotonin metabolism would be unaltered in pineal gland cells after either drug, as deamination is not a major pathway for serotonin in this tissue. 16 references.

160466 Garattini, Silvio; Mussini, Emilio; Marcucci, Franca; Guaitani, Amalia. Istituto di Richerche Farmacologiche 'Mario Negri', Via Eritrea 62, 20157 Milan, Italy Metabolic studies on benzodiazepines in various animal species. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 75-97).**

Metabolic studies on benzodiazepines were examined in various animal species. In vitro and in vivo metabolism studies show a species pattern for mice, rabbits, dogs, rats, cats and guinea pigs which may be due to N1-demethylation and/or C3-hydroxylation. Similar differences are noted in the enterohepatic circulation, storage in adipose tissue, drug brain levels, relationships between brain concentrations and anticonvulsant activity and brain concentrations and anticonvulsant activity in newborns. Relationships between structure and activity and between brain levels of benzodiazepines and pharmacological activity are noted. These studies help to explain drug effects in man. 25 references.

160468 Van der Kleijn, Eppo; Guelen, Pieter J. M.; Beelen, Trudy C. M.; Rijntjes, Nico V. M.; Zuidgeest, Ton L. B. Sint Radboud Hospital Pharmacy, Dept. of Clinical Pharmacy, Univ. of Nijmegen, Netherlands Kinetics of general and regional brain distribution of closely related 7-chloro-1,4-benzodiazepines. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 145-164).**

The kinetics of general and regional brain distribution of closely related 7-chloro-1,4-benzodiazepines, medazepam, diazepam, N-desmethyldiazepam and oxazepam, were examined to determine the relation between the drug concentration in plasma and the regional concentration in the target organ and with the possible relevance of this concentration with regard to the pharmacological effect. Studies were made with mice, squirrel monkeys and a man. Results of the study are reported for: penetration into the central nervous system; placental transfer; biliary excretion; regional brain distribution; and relevance of plasma concentration for pharmacological effect. 18 references.

160470 Essman, Walter B. Dept. of Psychology, Queens College of the City Univ. of New York, Flushing, NY 11367 Subcellular actions of benzodiazepines. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 177-190).**

The subcellular actions of two benzodiazepines, chlordiazepoxide (CDP) and SCH 12041, were examined concerning effects upon synaptosomal elements and subcellular organelles having possible significance for the functional integrity of the synapse. Findings suggest that the two compounds exercise their effects at the presynaptic

nerve endings of guinea pig cerebral cortex. Differences in electrolyte changes associated with such subcellular constituents and organelles were shown to be related both in terms of dose and time following treatment to correlated changes in the concentration of ribonucleic acid (RNA) within the synaptosomal compartment and also to acetylcholine (ACh) stored within cholinergic nerve endings. No detectable amounts of CDP were associated with synaptic vesicles and electrolyte and RNA changes did not occur at this site following CDP treatment. It is suggested that the interactions of electrolytes, nucleic acids and biogenic amines at the nerve endings is in response to the uptake and specific synaptic deposition of benzodiazepines. 14 references. (Author abstract modified)

160471 Taylor, Kenneth M.; Laverty, R. Dept. of Pharmacology, Univ. of Otago Medical School, Dunedin, New Zealand The interaction of chlordiazepoxide, diazepam, and nitrazepam with catecholamines and histamine in regions of the rat brain. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 191-202).**

The effect of chlordiazepoxide (CDP), diazepam (DP) and nitrazepam on histamine and catecholamine systems in regions of the rat brain has been studied using fluorometric, radioisotopic and enzymatic - isotopic techniques. The benzodiazepine drugs decrease norepinephrine turnover in the thalamus - hypothalamus - midbrain, cortex and cerebellum regions and dopamine turnover in the corpus striatum. The drugs also antagonize the increased catecholamine turnover in these regions after electro - footshock stress. CDP and DP are weak inhibitors of norepinephrine uptake into hypothalamic synaptosomes and dopamine uptake into striatal synaptosomes. They prevent the decrease in hypothalamic histamine elicited by restraint and cold exposure. 37 references. (Author abstract)

160472 Lidbrink, Peter; Corrodi, Hans; Fuxe, Kjell; Olson, Lars. Dept. of Histology, Karolinska Institute, Solnavagen 1, S-104 01 Stockholm 60, Sweden The effects of benzodiazepines, meprobamate, and barbiturates on central monoamine neurons. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 203-223).**

The effects of benzodiazepines, meprobamate and barbiturates on the central monoamine neurons was studied using a combined biochemical and histochemical approach. It was found that the compounds were particularly potent in stressed rats in which they counteracted stress induced increases in noradrenaline (NA) turnover throughout the brain. In unstressed rats only cortical NA turnover was reduced leaving the NA turnover in the brainstem unaffected. The dopamine (DA) and 5-hydroxytryptamine (5-HT) turnover in the forebrain and in the cortex cerebri was also reduced. Studies in functional models reveal that these compounds also act beyond the monoamine receptors, depressing brain functions like behavior and reflex activity. Suggestions for the reduction of fear motivated behavior and aggressiveness concerning NA, DA and 5-HT turnover are included. 90 references. (Author abstract modified)

160474 Bartholini, G.; Keller, H.; Pieri, L.; Pletscher, A. Research Dept., F. Hoffman-La Roche Co. Ltd., CH-4002 Basel, Switzerland The effect of diazepam on the turnover of cerebral dopamine. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 235-240).**

The effect of diazepam (DZ) on the turnover of cerebral dopamine was examined in rats. Treatment with DZ induced hypothermia and a concomitant decrease of the cerebral level of homovanillic acid (HVA) without affecting that of dopamine. If animals are kept normothermic by elevation of the environmental temperature, the drug has no effect on the brain HVA. DZ enhances the increase of cerebral HVA seen in spreading depression without influencing the content of dopamine. In the latter condition, the drug probably removes an inhibitory influence on the nigro-striatal pathway. 12 references. (Author abstract modified)

160475 Ladinsky, Herbert; Consolo, Silvana; Peri, Giuseppe; Garattini, Silvio. Istituto di Richerche Farmacologiche 'Mario Negri', Milan, Italy Increase in mouse and rat brain acetylcholine levels by diazepam. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 241-242).**

The duration of the effect of diazepam (DZ) in increasing acetylcholine in the mouse and rat brain was compared to determine if a relationship exists between the anti-pentylenetetrazol and acetylcholine increasing effects of DZ. A qualitiative relationship between the duration of the anti-pentylenetetrazol effect of DZ in the two species and the duration of increased acetylcholine levels in the brain was found. Data indicate that

acetylcholine was increased in the cerebral hemispheres and diencephalon but not in the mesencephalon or cerebellum of the mouse 30 m after an intravenous injection of DZ. 5 references.

160476 Gey, K. Friederich. F. Hoffman-La Roche Co. Ltd., Grenzacherstrasse 124, 4002 Basel, Switzerland Effect of benzodiazepines on carbohydrate metabolism in rat brain. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 243-255).**

The effect of benzodiazepines on the carbohydrate metabolism in the rat brain was examined. A determination of blood levels was made after injection i. p. with chlordiazepoxide hydrochloride (CDP), diazepam (DZ) or placebo. Both drugs caused a slight and transient rise in blood glucose and an 80% to 100% increase of intercellular glucose in the brain for 15 m to 2 h. The accumulation of glucose occurred without a significant change of cerebral glycogen, glucose-6-phosphate, fructose-6-phosphate, dihydroxyacetone phosphate, pyruvate, lactate, alpha-amino nitrogen and ATP but was initially accompanied by a slight rise of fructose-1,6-diphosphate. Results suggest that CDP and DZ do not markedly reduce glycosis and may be considered to increase the cerebral glucose by an enhanced glucose uptake and therefore the drugs' mechanisms differ from that of the hypnotics and neuroleptics. 28 references. (Author abstract modified)

160478 Morselli, P. L.; Cassano, G. B.; Placidi, G. F.; Muscettola, G. B.; Rizzo, M. Istituto di Richerche Farmacologiche 'Mario Negri', Via Eritrea 62, 20157 Milan, Italy Kinetics of the distribution of 14C-diazepam and its metabolites in various areas of cat brain. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 129-143).**

Data obtained using autoradiographic and chemical analysis of the distribution of 14C-diazepam (DZ) and its metabolites in brain and other tissues of the cat is summarized. In cats, DZ undergoes metabolic degradation with the formation of N-demethyldiazepam, N-methoxazepam and oxazepam. Data indicate that: DZ penetration into the brain is not uniform and that white matter is more slowly penetrated than grey matter; distribution patterns in various areas of the brain are indicative of the importance of vascularity and possibly by the different rates of accumulation of the metabolites; the distribution pattern of DZ is similar to that of the barbiturates and diphenylhydantoin; among metabolites, N-demethyldiazepam appears to play a major role after both an acute or a chronic DZ administration; and there are different amounts of N-methyloxazepam and oxazepam in the cat brain than that found in other species. It is necessary to evaluate the penetration and localization of drugs in relation to specific brain structures rather than to the brain as a whole. 24 references. (Author abstract modified)

160542 Eriksson, C. J. Peter. Research Laboratories of the State Alcohol Monopoly (Alko), SF-00101, Helsinki 10, Finland Ethanol and acetaldehyde metabolism in rat strains genetically selected for their ethanol preference. **Biochemical Pharmacology (Oxford). 22(18):2283-2292, 1973.**

Ethanol and acetaldehyde metabolism in both sexes in rat strains genetically selected for their ethanol preference were studied. A once through perfusion technique was applied, so that in the same liver, ethanol and acetaldehyde oxidation, the cytoplasmic redox state and oxygen consumption could be measured. The female rats of both strains, the AA (Alko, Alcohol) and ANA (Alko, Nonalcohol), had a more rapid ethanol oxidation and oxygen consumption, and the AA strain displayed a significantly lower level of acetaldehyde during ethanol oxidation. Results are discussed in relation to the regulation of the ethanol and acetaldehyde metabolism. The biochemical basis for ethanol preference is briefly discussed. 27 references. (Author abstract modified)

160545 McKenzie, Gerald M.; White, Helen L. Department of Pharmacology, Wellcome Research Laboratories, Research Triangle Park, NC 27709 Evidence for the methylation of apomorphine by catechol-O-methyltransferasee in vivo and in vitro. Evidence for the methylation of apomorphine by catechol-O-methyltransferasee in vivo and in vitro. **Biochemical Pharmacology (Oxford). 22(18):2329-2336, 1973.**

Pretreatment with either pyrogallol, tropolone or 8-hydroxyquinoline and subsequent enhancement of the mean stereotyped behavior scores after apomorphine treatment in the rat was studied. Experiments in vitro, using rat liver or brain catechol-O-methyltransferasee (COMT) preparations and 14C-methyl-S-adenosyl-L-methionine, demonstrated that apomorphine was methylated by this enzyme system. Pyrogallol and tropolone inhibited the methylation of apomorphine in vitro competitively when the apomorphine concentra-

tion was varied. These results suggest that methylation by COMT may represent an important metabolic pathway for the deactivation of apomorphine in vivo. 30 references. (Author abstract modified)

160546 Collins, Allan C.; Cashaw, Jesse L.; Davis, Virginia E. School of Pharmacology, University of Colorado, Boulder, CO Dopamine-derived tetrahydroisoquinoline alkaloids--inhibitors of neuroamine metabolism. **Biochemical Pharmacology (Oxford). 22(18):2337-2348, 1973.**

A primary metabolic route for salsolinol and tetrahydropapaveroline (THP) as aberrant metabolites of dopamine is proposed as methylation of one or more of the free hydroxyl groups catalyzed by catechol-O-methyl transferase (COMT). Through the use of a partially purified COMT preparation from rat liver, the maximal velocities of salsolinol and THP O-methylation proved to be three to five times the maximal velocities of norepinephrine and dopamine O-methylation. These date suggest that, if formed in vivo under certain pharmacological conditions, aberrant neuroamine-derived alkaloids may alter the metabolic disposition of endogenous neuroamines with resultant modification of adrenergic function. 31 references. (Author abstract modified)

160633 Nakamura, J.; Winters, W. D. School of Medicine, Department of Pharmacology, University of California, Davis, CA 95616 Attenuation of the morphine EEG continuum following a repeat dose within 16 days: delayed tolerance in the rat. **Neuropharmacology (Oxford). 12(7):607-617, 1973.**

A continuum of electroencephalogram (EEG) changes featuring five distinct EEG phases seen after the administration of 40mg/kg of morphine are described. The EEG changes were interpreted to represent a continuum of excitatory CNS states. The results also confirm the phenomenon of single dose tolerance to morphine by using EEG changes in the rat as the criteria and indicate that tolerance appears after 8-16 days have elapsed. The EEG changes indicative of tolerance were: 1) a significant increased latency to onset of the later EEG phases; 2) an attenuation of the maximal EEG effect; 3) a reduced latency to onset of the EEG signs of recovery with the return to the earlier phases. 23 references. (Author abstract)

160634 Colasanti, Brenda; Khazan, N. Department of Pharmacology, West Virginia University Medical Center, Morgantown, WV Agonistic properties of narcotic analgesics and antagonists on the electroencephalogram and behavior in the rat and their reversal by naloxone. **Neuropharmacology (Oxford). 12(7):619-627, 1973.**

Agonistic properties of narcotic analgesics and antagonists on the electroencephalogram (EEG) and behavior in the rat and their reversal by naloxone are reported. Acute administration of the narcotic analgesics morphine, methadone, meperidine, or codeine was followed by the induction of high voltage slow activity in the EEG during behavioral stupor of the rat, the duration of which was dose related. Administration of the narcotic antagonists nalorphine, pentazocine, or cyclazocine resulted in similar EEG and behavioral changes. This initial period of EEG slow activity and behavioral stupor was uniformly succeeded by a secondary phase of EEG desynchrony and behavioral arousal, the duration of which depended upon the individual narcotic and antagonist agents. The narcotic antagonist naloxone, however, was devoid of such effects. Nalorphine administered at the dose rations of 1 : 4 or 1 : 8 5min before morphine significantly reduced the duration of the morphine response. Administration of naloxone at a dose ratio of 1 : 5 5 min before morphine, however, resulted in a complete reversal of EEG slow activity in association with stuporous behavior of the rat is an agonistic property of narcotics and antagonist analgesics which is reversed by pure narcotic antagonists. 18 references. (author abstract)

160635 York, D. H. Department of Physiology, Queen's University, Kingston, Ontario, Canada Antagonism of descending effects of the substantia nigra on lumbo-sacral monosynaptic reflexes. **Neuropharmacology (Oxford). 12(7):629-636, 1973.**

A potentiation of lumbo - sacral monosynaptic reflexes (MSR) by previous conditioning volleys delivered to the substantia nigra antagonized by chlorpromazine and haloperidol is reported. Atropine, benzotropine and methysergide were without effect. The nigral induced enhancement of spinal reflexes was not affected by close intraarterial injection of L-DOPA, which was observed to cause a marked increase in the amplitude of the MSR. The results indicate that the monoaminergic portion of the nigral spinal pathway is probably located at a supra spinal level. 21 references. (Author abstract)

160637 Harris, Jane E.; Baldessarini, R. J. Department of Pharmacology, Emory College, Atlanta, GA 30322 Uptake of (3H)-catecholamines by homogenates of rat corpus striatum and cerebral cortex: effects of amphetamine analogues. **Neuropharmacology (Oxford). 12(7):669-679, 1973.**

The effects of isomers and metabolites of amphetamine on the uptake of 03H0-catecholamines in synaptosomal preparations of the striatum and cortex of the rat were investigated. Dextroamphetamine was found to be four times more potent than the (-) enantiomer against the uptake of03H0-dopamine with striatal tissue. This difference may help to clarify the effects of the isomers on the development of stereotyped behavior in the rat. The p-hydroxylation of amphetamine did not alter its potency, while beta-hydroxylation of amphetamine or p-OH-amphetamine reduced the inhibitory potency markedly. With cerebral cortex, less than a twofold difference was found for the potencies of (+)- and (-)-amphetamine against the uptake of 03H0-norepinephrine. Although pretreatment with reserpine resulted in a marked inhibition of the initial uptake of norepinephrine, reserpine did not alter the relative potencies of the stereoisomers of amphetamine against the uptake of norepinephrine by cortex. 27 references. (Author abstract)

160639 Wenger, G. R.; Stitzel, R. E.; Craig, C. R. Department of Pharmacology, University of Colorado, Denver, CO 80220 The role of biogenic amines in the reserpine-induced alteration of minimal electroshock seizure thresholds in the mouse. **Neuropharmacology (Oxford). 12(7):693-703, 1973.**

The role of biogenic amines in the reserpine induced alteration of minimal electroshock seizure thresholds was examined in the mouse. A single injection of reserpine produced an increased susceptibility to minimal electroshock seizures, as well as a decrease in whole brain levels of norepinephrine (NE), dopamine (DA), and serotonin (5-HT). The return to normal seizure susceptibility correlated well with the return of the ability of whole brain tissue to synthesize and retain 3H-amine formed from either 3H-3,5-L-tyrosine of 3H-5-hydroxy-DL-tryptophan. Selective inhibition of catecholamine synthesis with alpha-methyl-p-tyrosine, following reserpine administration, prevented the return to normal both of seizure susceptibility and NE and DA levels. The combination of disulfiram and reserpine also prevented the return to normal seizure susceptibility. After the latter treatment, levels of DA were elevated while NE remained depressed. Selective inhibition of 5-HT synthesis following reserpine similarly prevented the return of normal seizure susceptibility. Results suggest that NE and 5-HT, but not DA, are important in regulating minimal electroshock seizure susceptibility. 24 references. (Author abstract)

160646 Ziegler, Michael G.; Lovell, Richard A.; Freedman, Daniel X. Department of Psychiatry, University of Chicago, 950 East 59th St., Chicago, IL 60637 Effects of lysergic acid diethylamide on the uptake and retention of brain 5-hydroxytryptamine in vivo and in vitro. **Biochemical Pharmacology (Oxford). 22(17):2183-2193, 1973.**

The effects of D-lysergic acid diethylamide (LSD) and other drugs on brain 5-hydroxytryptamine (5-HT) in vivo and in vitro and on 3H-5-HT administered intraventricularly studied in male Sprague-Dawley rats were studied. The results in vivo show that the retention of 3H-5-HT in the brain is increased by treatment (i.p.)with LSD and p-chlorophenylalanine (PCPA) and decreased by reserpine. This LSD effect in vivo can be reversed by intraventricular ouabain (given together with 3H-5-HT) in amounts which cause brief convulsions. In vitro, LSD added to the medium initially decreased uptake of 3H-5-HT in brain slices but enhanced its retention. These effects of LSD were not observed either after pargyline treatment or in the presence of pargyline in vitro. These results are consistent with the idea that LSD decreases 5-HT turnover through an inhibition of neuronal firing, which can be overcome by neuronal depolarization sufficient to cause convulsions. It is suggested that the decreased 5-HT turnover seen after LSD is somehow mediated by a mechanism which protects 5-HT from deamination by monoamine oxidase, and that an effect on 5-HT uptake may be a mechanism involved in the interaction of LSD with brain 5-HT. 49 references. (Author abstract)

160647 Halaris, Angelos E.; Lovell, Richard A.; Freedman, Daniel X. Department of Psychiatry, University of Chicago, Chicago, IL 60637 Effect of chlorimipramine on the metabolism of 5-hydroxytryptamine in the rat brain. **Biochemical Pharmacology (Oxford). 22(17):2200-2202, 1973.**

The effect of chlorimipramine on the metabolism of 5-hydroxytryptamine (5-HT) was studied in the rat brain. The drug intially caused a small but

significant increase in brain 5-HT at 30 and 45 min. Thereafter, 5-HT levels declined slightly over time. 5-Hydroxyindoleacetic acid (5-HIAA) levels showed a significant decrease at all times studied. Results suggest that the effect of chlorimipramine cannot only be a matter of reuptake blockade; the decline in 5-HT over time may indicate that the rate of its metabolism is altered or that its accessibility to monoamine oxidase is affected. The following hypothetical series of events is offered: 5-HT intially accumlates as a result of the blockade of reuptake; this shift in the disposition of 5-HT is intially best measured by the diminished 5-HIAA at 15 min. The measurable accumulation of 5-HT at 30 and 45 min probably takes place at the extraneuronal receptor sites; these events over 45 min possibly induce an increased receptor stimulation. A negative feedback mechanism might then intitiate a reduction in the rate of 5-HT synthesis. 24 references.

160649 Baldy-Moulinier, M.; Arias, L. P.; Passouant, P. Department of Physiopathology of Nervous Disease, University Hospital, Montpellier, France Hippocampal epilepsy produced by ouabain: studies of cerebral circulation and ionic metabolism. **European Neurology (Basel). 9(6):333-348, 1973.**

The epileptogenic property of ouabain was studied in cats, including 17 chronic and 13 acute animals. In chronic experiments, infusion of ouabain into the septum by means of an indwelling cannula induced severe rhinencephalic epileptic state followed by a long-lasting spike activity in the hippocampus. Several mechanisms responsible for such a self-sustained epileptic activity are discussed by considering the specific metabolic action of ouabain and the site of injection. Intraventricular infusion of ouabain, induced a loss of intracellular potassium demonstrated by an increase of potassium concentration in CSF followed by a cerebral hyperemia. The change in cerebral ionic distribution is considered as a causal factor of both cerebral hyperemia and epileptic activity. The influence of the preconvulsive increase of the cerebral blood flow upon the peculiar intensity of epilepsy induced by ouabain is suspected. From these results, the role of potassium in regulating electrical activity and cerebral blood flow and the interrelationship of the latter are emphasized. 36 references. (Author abstract)

160748 Vestergaard, Per B. New York State Department of Mental Hygiene, Albany, NY Analysis of cannabis metabolites in biological fluids. Progress report, NIMH Grant MH-20530, 1972, 1 p.

Fast liquid chromatography to separate cannabis metabolites with microparticulate chromatography on silica gel and isotopic and mass fragmentographic methods on the LKB 9000 gas chromatograph/mass spectrometer were developed. The next phase in research will involve isotopic labelling of THC in man and animals to deduce metabolic patterns. (Author abstract modified)

160750 Yolles, Seymour. no address Long acting morphine antagonists -- polymer blends. Final report, NIMH Grant MH-16799, 1973, 3 p.

Studies were performed on 33 Sprague-Dawley rats to demonstrate the feasiblity of the drugs cyclazocine, pentazocine and naloxone in polymer blends as morphine antagonists was investigated in research on Sprague-Dawley rats. Subcutaneously implanted drug - poly (lactic acid) or drug - polyethylene demonstrates long-term inhibitory action on heroin activity, allowing conjectures that its use may block the action of heroin in addicts for periods as long as 3 months, minimizing the load on trained personnel in scheduled drug administration. 4 references.

160767 Reynolds, Angela P.; Gallagher, Brian B. MRC Neuropsychiatry Unit, Woodmansterne Road, Carshalton, Surrey, England The effect of hexafluorodiethyl ether (flurothyl) on the metabolism of rat brain amino acids labelled by (U-14C)glucose. **Life Sciences (Oxford). 13(2):87-95, 1973.**

The effect of hexafluorodiethyl ether (flurothyl) on the metabolism of rat brain amino acids labelled by U-14C glucose was studied. The incorporation of radioactivity into the Krebs cycle related amino acids from U-14C glucose was studied in rat brain during the development of a seizure induced by Flurothyl. This was done at the time of the first myoclonic jerk, 40 seconds later, and at the onset of the seizure. Under experimental conditions employed, no change was observed in the levels of amino acids or in the specific radioactivity of glutamate, aspartate, glutamine, GABA or alanine at any of these times. 14 references. (Author abstract modified)

160768 Stone, T. W. Department of Physiology, University of Aberdeen, Marischal College, Aberdeen, England Strychnine, morphine and monamine depression. **Life Sciences (Oxford). 13(2):125-133, 1973.**

The effects of strychnine on depressant responses to acetylcholine, noradrenaline and 5-hydroxytryptamine when these agents were applied by microiontophoresis to spontaneously active cells in the rat cerebal cortex were studied. The possibility of interaction between morphine and monoamine depressions was investigated. Each of the three transmitters tested was implicated in morphine's analgesic and possibly addictive properties. Morphine antagonism of 5-hydroxytryptamine in the periphery was acknowledged. Results show that noradrenaline depressant responses were not susceptible to blockade by strychnine. On nonpyramidal tract cells, 25% of depressant responses to 5-hydroxytryptamine were reversibly antagonized by strychnine. Morphine was found not to interact with 5-hydroxytryptamine or noradrenaline. 28 references. (Author abstract modified)

160769 Maj, Jerzy; Pawlowski, Leszek. Department of Pharmacology, Polish Academy of Sciences, Cracow, Poland The hypothermic effect of L-DOPA in the rat. **Life Sciences (Oxford). 13(2):141-149, 1973.**

The hypothermic effect of L-DOPA on rats was studied by giving L-DOPA together with a peripheral decarboxylase inhibitor. It caused a fall in rectal temperature, a decrease of the brain serotonin (5-HT) level and an increase of the 5-hydroxyindoleacetic acid (5-HIAA) level. These effects were counteracted by pretreatment with p-chlorophenlyalanine. The dopamine receptor blocking agents, pimozide and sprirperidol, did not influence the rectal temperature in normal rats and did not antagonize the hypothermia induced by L-DOPA. It was suggested the L-DOPA hypothermia does not involve central dopaminergic neurons. It may result from the release of 5-hydroxytryptamine from its storage sites. 18 references. (Author abstract modified)

160770 Boggan, William O. Department of Psychiatry and Psychology, University of Chicago, Chicago, IL 60637 Psychoactive compounds and audiogenic seizure susceptibility. **Life Sciences (Oxford). 13(2):151-159, 1973.**

Psychoactive compounds and audiogenic seizure susceptibility was studied in mice. LSD, mescaline, d and l-amphetamine, cocaine and morphine were all effective in blocking audiogenic seizure susceptibility. None of the compounds were effective in blocking the priming of a non-susceptible strain of mice. This latter finding differentiated these compounds from delta9-tetrahydrocannabinol which had been previously reported to block priming. 11 references. (Author abstract modified)

160772 Marshall, Finley D., Jr. Biochemistry Department, School of Medicine, The University of South Dakota, Vermillion, SD The effect of reserpine, chlorpromazine and nembutal on levels of dipeptides in rat brain and muscle. **Life Sciences (Oxford). 13(2):135-140, 1973.**

Rat brain levels of histidine, carnosine, and homocarnosine were determined after intraperitoneal injection of chlorpromazine (CPZ), sodium pentobarbital (PB), or reserpine (RSP). At the same time, rat muscle levels of histidine, carnosine, and anserine were determined. RSP, CPZ, and PB significantly lowered brain homocarnosine levels and RSP raised histidine levels. RSP, CPZ, and PB significantly lowered levels of muscle carnosine and anserine. PB and CPZ also lowered levels of muscle histidine. 9 references. (Author abstract)

160799 Keiding, Susanne; Andreasen, Per Buch; Fauerholdt, Lis. Medical Department A, Rigshospitalet, Copenhagen, Denmark Effect of phenobarbital induction on galactose elimination capacity in the rat. **Biochemical Pharmacology (Oxford). 22(18):2293-2297, 1973.**

Patients with liver disorders often receive drugs which induce changes in hepatic enzymes, and therefore the influence of such drugs on the galactose elimination capacity in rats was investigated. A paired experiment was performed with 11 pairs of female Wister rats weighing about 200g. Each pair received daily intraperitoneal injections of either phenobarbital or isotonic saline for 8 days. The galactose elimination capacity was estimated by intravenous infusion of galactose. Phenobarbital significantly increased the weight of the liver, the lactate dehydrogenase activity, the microsomal protein, and the hepatic content of cytochrome P-450. The galactose elimination capacity was not significantly changed by phenobarbital and was related neither to the total content of cytochrome P-450 nor to the total lac-

tate dehydrogenase activity. It is concluded that galactose elimination in rats is independent of enzyme induction by phenobarbital. 24 references. (Author abstract)

161141 Mylecharane, E. J.; Raper, C. Department of Pharmacology, University of Melbourne, Parkville, Victoria 3052, Australia Further studies on the adrenergic neuron blocking activity of some beta-adrenoceptor antagonists and guanethidine. **Journal of Pharmacy and Pharmacology (London). 25(3):213-220, 1973.**

The effects of low and high concentrations of propranolol, and sotalol and guanethidine were tested for their ability to reduce responses to sympathetic stimulation in the isolated vas deferens preparation from the guinea pig. At 0.2microgram ml-1 all drugs produced a slowly developing reduction in the responses to sympathetic stimulation while responses to noradrenaline were largely unchanged. The blockade, which was similar in extent in all six compounds, was reversed by amphetamine but not by washing. With high concentrations of propranolol and guanethidine, the block was rapid in onset and rate and responses to noradrenaline were potentiated. The block was reversed by washing and unaffected by amphetamine. Sotalol and its isomers, which possess little nonspecific depressant activity, had qualitatively similar actions at 0.2and 20 micrograms ml. At the latter concentrations responses to noradrenaline were potentiated. Sotalol and its isomers, which possess beta-adrenoceptor antagonists produce a blockade which is typical of guanethidine like drugs. At high concentrations nonspecific depressant (local anesthetic) actions of propranolol and its isomers are largely responsible for the blockade. A similar mechanism may also operate when high concentrations of guanethidine are used. 15 references. (Author abstract modified)

161142 Patil, P. N.; Burkman, A. M.; Yamauchi, D.; Hetey, S. College of Pharmacy, Ohio State University, Columbus, OH 43210 Analysis of the effects of apomorphine and bulbocapnine in relation to the proposed dopamine receptor. **Journal of Pharmacy and Pharmacology (London). 25(3):221-228, 1973.**

The effects of apomorphine and bulbocapnine in relation to proposed dopamine receptor were studied. On rat isolated vas deferens, apomorphine was found to be 1/5th as active as dopamine. Reserpine or cocaine pretreatment failed to reduce the response to apomorphine. Low concentrations of apomorphine which do not cause contraction of the tissue, antagonize the effects of dopamine. The effects of dopamine were antagonized equally by phentolamine or apomorphine. During the tachyphylactic period dopamine was not inhibited to a significantly greater extent than was phenylephrine. Bulbocapnine tested against dopamine and phenylephrine yielded identical pA2 values. Dopamine or isoprenaline induced relaxations of aortic strips were not blocked by bulbocapnine. Dopamine and bulbocapnine increased the chronotropic effects in atria. These results are discussed in light of the proposal that the effects of apomorphine and bulbocapnine involve dopamine receptor interactions. 27 references. (Author abstract modified)

161143 Stern, P. Institute of Pharmacology, School of Medicine, University of Sarajevo, Yugoslavia The influence of synthetic 'Substance P' on tremor caused by LSD in mice. **Journal of Pharmacy and Pharmacology (London). 25(3):259-260, 1973.**

The influence of synthetic Substance P (SSP) on tremor caused by lysergic acid diethylamide (LSD) was studied in mice. SSP potentiated oxotremorine and LSD tremor. Tremor caused by oxotremorine was abolished by atropine while tremor caused by LSD was unmodified. SSP also abolished harmine and amphetamine induced tremor. SSP had no effect on the intentional tremor caused by guanethidine. SSP was also found to raise acetylcholine (Ach) in mouse brain. This increase in Ach was interpreted to account for the observed potentiation of LSD tremor. 13 references.

161144 Janis, R. A.; Triggle, D. J. Department of Biochemical Pharmacology, School of Pharmacy, State University of New York, Buffalo, NY 14214 On the question of subclassification of alpha-adrenoceptors. **Journal of Pharmacy and Pharmacology (London). 25(3):263-264, 1973.**

In a letter to the editor, the subclassification of alpha-adrenergic alpha-adrenoceptors is discussed. It is suggested that the kinetics of recovery of response from irreversible alpha-adrenoceptor antagonism by short acting 2-halogenoethylamines may be sensitive to subtle differences at or near the receptor. The values obtained for the recovery of response from DMPEA (NN-dimethyl-2-bromo-2-phenylethylamine) for rat and rabbit aorta and rat vas deferens suggested that these

receptors were different from those of the guinea-pig and rabbit vas deferns. Cinchocaine, tetracaine and diazoxide can modify the prolonged duration of action of SY-28 (N-(2-bromoethyl)-N-ethyl-1-naphthylmethylamine). The t1/2 for recovery of response of DMPEA treated rabbit vas deferens was 120 min and this was not changed by the tetracaine or diazoxide pretreatment. Similarly, the prolonged duration of action of SY-28 in these three tissues was not significantly altered by the pretreatment agents. 15 references. (Author abstract modified)

161340 Coignet, J. L.; Viala, D.; Buser, P. Laboratoire de Neurophysiologie comparee, Universite Paris VI, 9, Quai Saint-Bernard, F-75 Paris 5e, France /The suppression in rabbits of the locomotor effects of DOPA by diethyldithiocarbamate./ Surpression, chez le lapin, des effets locomoteurs de la DOPA par le diethyldithiocarbamate. **Experientia (Basel). 29(3):309-310.**

That supraspinal extensor activation in locomotion in rabbits is dependent on synthesis of norepinephrine and not of dopamine was studied. Mesencephalic, curarized rabbits can develop locomotor discharges with alternating phases of flexions and extensions in hind limb nerves. DOPA was shown to exaggerate the extensor activity as compared to that in the flexor. It was demonstrated that diethyldithiocarbamate, a dopamine-beta-hydroxylase inhibitor, suppresses discharges in extensor nerves and a subsequent injection of DOPA does not, in general, result in greater activity. 11 references. (Author abstract modified)

161378 de Lores Arnaiz, Georgina Rodriguez; de Canal, Martha Alberici; de Pacheco, Blanca Robiolo; de Pacheco, Marta Mistrorigo. Instituto de Anatomia General y Embriologia, Universidad de Buenos Aires, Argentina, South America The effect of the convulsant 3-mercaptopropionic acid on enzymes of the gamma-aminobutyrate system in the rat cerebral cortex. **Journal of Neurochemistry. 21(3):615-623, 1973.**

The activities of gamma-aminobutyric acid (GABA) enzyme in rat cerebral cortex were studied after the administration of the convulsant, 3-mercaptopropionic acid (MP). It was found that MP markedly inhibited glutamate decarboxylase and activated GABA-amino-transferase. The level of GABA appeared to be decreased during convulsions but thereafter returned to normal. The study of the subcellular distribution of GABA enzymes after the administration of MP indicated that the glutamate decarboxylase present in the nerve endings was not affected, while GABA aminotansferase in the mitochondria was activated to a similar extent to that observed in the original homogenate. These results together with the recovery of glutamate decarboxylase activity in cortical homogenates by by dialysis suggested a reversible type of inhibiton, whereas the effect on GABA-amino-transferase seemed to be more permanent. 24 references. (Author abstract)

161379 Nahorski, S. R.; Rogers, K. J. Dept. of Pharmacology and Therapeutics, The University, Sheffield, S10 2TN, England In vivo effects of amphetamine on metabolites and metabolic rate in brain. **Journal of Neurochemistry 21(3):679-686, 1973.**

Interactions between cerebral catecholamine and energy metabolism was investigated through study of neurochemical parameters in amphetamine treated animals. The concentrations of several metabolites, including glucose, glycogen, glucose-6-phosphate, lactate, ATP and phosphocreatine were measured in the brains of mice rapidly frozen at various intervals after the intraperitoneal injection of D-amphetamine sulphate (5mg/kg). During the initial 30 min following injection, amphetamine induced a fall in cerebral glycogen and phosphocreatine and an elevation of lactate. The cerebral metabolic rate calculated by the 'closed system' technique also showed a biphasic change. An initial depression of energy flux over the first 15 min following amphetamine injection was followed by an increase that appeared to be closely associated with the increase in locomotor activity over this period. The results are discussed in relation to the known catecholamine releasing action of amphetamine, and differential effects on glial cells and neurons are proposed. 40 references. (Author abstract modified)

161390 Mellerup, E. T.; Plenge, P.; Rafaelsen, O. J. Psychochemistry Institute, Rigshospitalet, 9, Blegdamsvej, DK-2100 Copenhagen, Denmark Lithium effects on magnesium metabolism in rats. **International Pharmacopsychiatry (Basel). 8(3):178-183, 1973.**

Lithium effects on magnesium metabolism in rats were studied. Administration of lithium chloride to rats increased serum magnesium. The distribution of injected magnesium was also

changed by lithium: radioactivity in serum was increased, radioactivity in bone was decreased. The results were similar to those which could be obtained with radioactive calcium. It is suggested that the results were secondary to lithium effects on carbohydrate metabolism. 31 references. (Author abstract)

161731 Frazer, Alan; Mendels, Joe; Secunda, Steven K.; Cochrane, Carl M.; Bianchi, C. Paul. University of Pennsylvania School of Medicine and Affective Diseases Research Unit, VA Hospital, Philadelphia, PA 19104 The prediction of brain lithium concentrations from plasma or erythrocyte measures. **Journal of Psychiatric Research (Oxford). 10(1):1-7, 1973.**

Lithium (Li) administered to rats acutely and chronically in order to examine the effects of chronic Li administration on intracellular (erythrocyte, RBC) electrolyte concentrations of patients is discussed. Determination of plasma, erythrocyte (RBC), and brain concentrations of lithium show that erythrocyte lithium concentrations are a better predictor of brain lithium levels than are plasma lithium concentrations. The potential clinical use of this finding is discussed. 22 references. (Author abstract modified)

161963 Nasello, Antonia G.; Marichich, Erna S. Catedra de Farmacologia, Facultad de Ciencias Quimicas, Ciudad Universitaria, Estafeta 32, Cordoba, Argentina Effects of some cholinergic, adrenergic and serotoninergic compounds, glutamic acid and GABA on hippocampal seizures. **Pharmacology (Basel). 9(4):233-239, 1973.**

The dorsal hippocampus of rats was perfused with solutions of acethylcholine (Ach), norodrenaline (NA), 5-HT, glutamic acid (GA) GABA, atropine, eserine, hexamethonium, dibenamine, nethalide, alpha-methyltyrosine (alpha-MT), methysergide and p-chlorophenylalanine (p-CPA), in order to determine their effect on the number of stimuli to the fornix needed, at 10 second rates, to cause a hippocampal seizure. Ach, 5-HT and GA reduced this number, and NA and GABA increased it. Eserine had an effect similar to that of Ach, whereas atropine had an opposite one, and antagonized that of Ach. Dibenamine and alpha-MT acted oppositely to NA, and the former antagonized the effect of NA. Methysergide and p-CPA had an effect opposite to that of 5-HT, and methysergide antagonized that of the latter. With the method used it can't be determined if the antagonisms are competitive, noncompetitive or merely a sum of effects. Neither hexamethonium or nethalide had any effect of their own on the number of stimuli needed to cause a seizure. 35 references. (Author abstract)

161964 Nikulcheva, N. G.; Ryzhenkov, V. E. Institute of Experimental Medicine, Academy of Medical Sciences of the USSR, Leningrad, USSR Effect of reserpine on FFA mobilization caused by extreme stimulation of animals. **Pharmacology (Basel). 9(4):217-225, 1973.**

To study the role of catecholamines (CA) in the lipolysis activation and free fatty acid (FFA) mobilization caused by extreme stimulation of rats and guinea pigs, reserpine was used to deplete CA stores in the adipose tissues. It was established that injection of reserpine in the doses of 1, 3 and 10 mg/kg, 18 h prior to extreme stimulation, did not influence mobilization of FFA in rats in spite of the fact that these animals were centrally depressed by reserpine. Experiments on guinea pigs showed that reserpine increased the degree of FFA mobilization in conditions of stress. At the same time, reserpine raised the 17 oxycorticosteroids (17-OHCS) content in the blood plasma of immobilized guinea pigs. From the results obtained it is concluded that the FFA mobilization is well pronounced in conditions of a considerable CA depletion in the tissues produced by reserpine. 32 references. (Author abstract)

162046 McLean, J. R.; Ensor, C. R.; McCarthy, D. A.; Bohner, B.; Potoczak, D. Pharmacology Dept., Parke, Davis and Co., Ann Arbor, MI 48106 Effects of L-dopa and L-3-methoxytyrosine on d-methamphetamine-induced motor activity and seizures induced by electroshock (37475). **Proceedings of the Society for Experimental Biology and Medicine. 143(4):1083-1087, 1973.**

The effects of L-dopa and L-3-methoxytyrosine on d-methamphetamine induced motor activity and seizure induced by electroshock were studied in mice. L-3-Methoxytyrosine did not substitute for L-dopa, in increasing the threshold for electrically induced extensor seizures in mice, or in restoring the ability of D-methamphetamine to stimulate motor activity in rats treated with DL-a-methyltyrosine. At high doses L-3-methoxytyrosine inhibited the effect of L-dopa in both tests. L-3-Methoxytyrosine partially inhibited the increase in brain levels of dopa, dopamine, and norepinephrine produced by L-dopa. It is suggested that L-3-methoxytyrosine may interfere

with the uptake of L-dopa from the peritoneal cavity and from the blood into the brain. 15 references. (Author abstract modified)

162047 Malseed, Roger T.; Baker, Walter W. Eastern Pennsylvania Psychiatric Institute, Philadelphia, PA 19129 Analysis of tremorgenic effects of intracaudate serotonin (37476). **Proceedings of the Society for Experimental Biology and Medicine. 143(4):1088-1093, 1973.**

In chronic cats, 5-hydroxytryptamine (5-HT) injected into the caudate elicited tremors which were ascribed to a local excitatory effect. The 5-HT tremors developed rapidly, were of short duration and exhibited no tachyphylaxis. Tremor responses were readily antagonized by methysergide, reversibly suppressed by DA and prolonged by pargyline without a corresponding increase in amplitude. Development and maintenance of 5-HT tremor activity is substantially independent of cholinergic intervention. Based on its intracaudate profile of action and its ability to modify the neuroregulatory actions of local neurotransmitters (ACh, DA), 5-HT has been assigned a modulator role in the caudate. 17 references. (Author abstract)

162049 Zimmermann, E.; Critchlow, V. UCLA School of Medicine, Los Angeles, CA 90024 Inhibition of morphine-induced pituitary-adrenal activation by dexamethasone in the female rat (37506). **Proceedings of the Society for Experimental Biology and Medicine. 143(4):1224-1226, 1973.**

Adult female rats received 30mg/kg morphine sulfate (MS) ip 2 hours after sc injection of various doses of dexamethasone (Dex) or saline. Plasma corticosterone levels were markedly elevated 2 hours after MS and such elevation was partially suppressed by pretreatment with 20 microgram/kg Dex and markedly inhibited by 100 microgram/kg of this steroid; 5 microgram/kg failed to cause significant suppression of plasma corticosterone levels. Despite treatment with Dex and MS, all groups showed significant corticosterone responses to three minute ether stress. Because of the relatively low doses used, Dex appears to be a potent inhibitor of the ACTH-releasing action of MS. 14 references. (Author abstract)

162056 Beleslin, D. B.; Myers, R. D. Department of Pharmacology, Medical Faculty, Beograd 11105, Yugoslavia Spontaneous release and during metrazol convulsions of 5-hydroxytryptamine in some brain regions of conscious cat. **Experientia (Basel). 29(2):182-183, 1973.**

The spontaneous release and the release during metrazol convulsions of 5-hydroxytryptamine (5-HT) within various subcortical and mesencephalic structures of unanesthetized cats were investigated by using the newly developed 'push-pull' technique. The results indicate that spontaneous release of 5-HT is low or not detectable at some sites and suggests an uneven distribution. Convulsions produced by metrazol did not change significantly the 5-HT release from the subcortical and mesencephalic brain regions. 12 references.

162057 Fischer, E.; Heller, B.; Lumbreras, N. Universidad Nacional de Buenos Aires, Barracas 375, Buenos Aires, Argentina Influence of anticholinergic-antiparkinsonian agents on the effects of narcoanalgesic drugs in the rat. **Experientia (Basel). 29(2):188-189, 1973.**

The influence of anticholinergic-antiparkinsonian drugs on the analgesic and conditioned avoidance suppressing effects of morphine and meperidine in the rat were studied. In terms of its analgesic effects, both morphine sulfate and meperidine were enhanced by a previous injection of an antiparkinsonian drug. In terms of conditioned avoidance response, the blocking effect of morphine was diminished after a 15 day pretreatment with the same drug. The efficacy was then restored by an injection of an antiparkinsonian agent. 7 references.

162136 Stoica, E.; Meyer, John S.; Kawamura, Y.; Hiromoto, H.; Hashi, K.; Aoyagi, M.; Pascu, I. Department of Neurology, Baylor College of Medicine, Houston, TX 77025 Central neurogenic control of cerebral circulation. **Neurology. 23(7):687-698, 1973.**

The hypothesis that pharmacologic stimulation of brainstem structures might alter cerebral blood flow and metabolism is tested. Pyrithioxin and other drugs were injected into the vertebral or carotid artery of 18 baboons before other stimuli were applied. It was concluded that vasoconstrictor and vasodilator mechanisms exist within the brainstem that control the tonus of the larger cerebral vessels. A shift from hypocarbia to normocarbia increases the cerebral vasodilator tonus and the central vasodilating action of pyrithioxin is enhanved, whereas a shift from hypocarbia to normocarbia, cold stimulation to the forehead, and atropinization of the brainstem centers enhance the vasoconstrictor tonus, and the vasodilator action of pyrithioxin is descreased or abolished. 45 references. (Author abstract modified)

162272 Rake, Adrian V. Biophysics Department, Pennsylvania State University, University Park, PA 16802 Involvement of biogenic amines in memory formation: the central nervous system indole amine involvement. **Psychopharmacologia (Berlin). 29(2):91-100, 1973.**

Reserpine or parachlorophenylalanine administered after training and reported to alter central nervous tissue indole amine levels were shown to affect memory of a single trial passive avoidance training event of female CF-1 mice. Results indicate that the normal levels of indole amines are necessary during the formative phase of memory for normal levels of memory. 11 references. (Author abstract)

162273 Boggan, William O.; Steele, Ronald A.; Freedman, Daniel X. Department of Psychiatry, University of Chicago, Chicago, IL Delta9-tetrahydrocannabinol effect on audiogenic seizure susceptibility. **Psychopharmacologia (Berlin). 29(2):101-106, 1973.**

The effect of delta9-tetrahydrocannabinol (THC) on audiogenic seizure susceptibility in mice was studied. Mice, not normally susceptible to audiogenic seizures, can be made susceptible by exposing the animal to a loud auditory stimulus (priming) and then retesting the same animal at a later time. Delta9-tetrahydrocannabinol was found to decrease susceptibility when administered either prior to priming or prior to retest. This decrease in susceptibility was dependent upon both time and dose. The effectiveness of THC in blocking seizures when administered before priming points is a relatively unique action of this compound. In general, it appears that the THC is active at loci involved in predetermining convulsive states precipitated by auditory stimuli. 20 references. (Author abstract modified)

162279 Coussens, Wayne R.; Crowder, William F.; Davis, W. Marvin. Department of Psychology and Pharmacology, University of Mississippi, University, MS 38677 Morphine induced saccharin aversion in alpha-methyltyrosine pretreated rats. **Psychopharmacologia (Berlin). 29(2):151-157, 1973.**

Rats pretreated with L-alpha-methyltyrosine (AMT) and then given pairings of saccharin drinking and morphine infusion were studied. They subsequently showed a reduced preference for saccharin over water, when compared with control rats. Control conditions were AMT pretreatment with saccharin saline pairings, saline pretreatment with saccharin morphine pairings, and saline pretreatment with saccharin saline pairings. A second experiment also showed significantly greater saccharin aversion with morphine infused, AMT pretreated rats than with saline infused, AMT pretreated rats, although the morphine dosage was lower than that used in the first experiment. These results suggest that morphine is aversive to rats that have been treated with AMT. 19 references. (Author abstract)

162292 Benington, F.; Morin, R. D.; Beaton, J.; Smythies, J. R.; Bradley, R. J. Dept. of Psychiatry, Univ. of Alabama Medical Center, 1919 Seventh Ave. South, Birmingham, AL 35233 Comparative effects of stereoisomers of hallucinogenic amphetamines. **Nature New Biology (London). 242(119):185-186, 1973.**

The comparative effects of stereoisomers of hallucinogenic amphetamines were examined in the rat. Findings suggest that bromine substitution at the para position increases activity over alkyl substitution in either isomer of 2,5-dimethoxyamphetamine. The psychotomimetic potency of 2,5-dimethoxy-4-methylamphetamine (DOM) and 2,5-dimethoxy-4-bromoamphetamine (DOB) is mostly posessed by the R(-) isomer. The finding of the stereospecificity in the two psychotomimetic amphetamines DOM and DOB may only indicate a common mode of action for their R(-) isomer and (R;R)-(+)-LSD due to the configurational similarity. The fact that the R(-) isomer is more potent that S(+) for DOM and DOB in contradistinction to the isomers of amphetamine would implicate separate mechanisms of action for the hallucinogenic ring substituted amphetamines and amphetamine itself. 18 references. (Author abstract modified)

162336 Berridge, M. J.; Prince, W. T. ARC Unit of Invertebrate Chemistry and Physiology, Department of Zoology, Downing Street, Cambridge CB2 3EJ, England Mode of action of hallucinogenic molecules. **Nature New Biology (London). 243(130):283-284, 1973.**

The salivary glands of the adult blowfly, Calliphora, were used to investigate the proposed relationship between 5-hydroxytryptamine (5-HT) and hallucinogenic drugs. In this animal, 5-HT acts as a hormone that turns on fluid secretion by the salivary glands. When LSD is applied to the salivary gland, there is a rapid increase in fluid secretion rate, just as when 5-HT is applied. On

the other hand, the recovery after LSD treatment was greatly prolonged. One possible explanation is that the LSD - receptor interaction is readily reversible and that the slow recovery depends solely on the slow dispersion of a pool of molecules accumulated while in contact with the gland. These results provide a clue as to the possible mechanism by which hallucinogens act at the receptor level. They may mimic the action of 5-HT on the tryptaminergic receptor but their action is greatly prolonged because they fail to disengage properly from the active site. 10 references.

162391 Veech, R. L.; Hawkins, R. A.; Nielsen, R. C.; Phares, C. K.; Ruegamer, W. R.; Mehlman, M. A. Section of Neurochemistry, NIMH, St. Elizabeths Hospital, Washington, DC 20032 A comparison of the metabolic effects of growth hormone and growth factor from Spirometra mansonoides on rat liver in vivo. (Unpublished paper) Washington, DC, NIMH, 1973, 24 p.

The effects of 9 days of injection of bovine growth hormone (GH) (0.25mg/day/rat) or implantation of plerocercoids from Spirometra mansonoides on the intermediary metabolism of liver from normal or hypophysectomized rats were compared. Spirometra growth factor (SGF) increased the concentration of most of the glycolytic intermediates in the liver of normal rats while at the same time decreasing the concentration of citrate and NH4+. In the hypophysectomized animals, however, SGF and GH decreased or had no effect upon the glycolytic intermediates, increased the concentration of pyruvate and alpha-ketoglutarate and decreased the concentration of total adenine nucleotides. The consistent effect associated with the increased growth produced by SGF or GH was an elevation of the free cytoplasmic 0NADP+0/0NADPH0 ratio. 38 references. (Author abstract modified)

162394 Weight, Forrest F. Laboratory of Neuropharmacology, St. Elizabeths Hospital, Washington, DC 20032 Slow synaptic inhibition and adrenergic antagonism in sympathetic ganglion. (Unpublished paper) Bethesda, MD, NIMH, 1973, 1 p.

Slow synaptic inhibition and adrenergic antagonism in sympathetic ganglion were investigated. The question of the transmitter involved in slow synaptic inhibition was tested further by using catecholamine antagonists. The Xth lumbar sympathetic ganglion of the bullfrog was recorded by the sucrose gap method and drugs were added to the flowing oxygenated Ringer test solution containing nicotine or d-tubocurarine. The alpha-adrenergic blocking agent, dihydroergotamine effectively antagonized the hyperpolarization produced by 10-4M epinephrine, norepinephrine and dopamine. During the dihydroergotamine antagonism, the slow IPSP and the initial hyperpolarization produced by ACh were not reduced in amplitude. On the other hand, atropine antagonized botu the slow IPSP and the ACh hyperpolarization. These data are consistent with the hypothesis that the slow IPSP is not mediated by an adrenergic mechanism, but by ACh in the frog sympathetic ganglion. (Author abstract modified)

162398 Trabucchi, M.; Cheney, D. L.; Hanin, I.; Costa, E. Laboratory of Preclinical Pharmacology, NIMH, St. Elizabeths Hospital, Washington, DC 20032 Effect of various sedative drugs on levels of choline and acetylcholine and on turnover rate of acetylcholine in mouse brain. (Unpublished paper). Washington, DC, NIMH, 1973, 1 p.

Various drugs eliciting behavioral sedation (chlorpromazine, diazepam, pentobarbital and reserpine) were injected into mice to study and compare their effect on brain acetylcholine (ACh) turnover rate (TR) in vivo. Chlorpromazine did not change the levels of ACh and Ch either at pharmacological (5mg/kg twice daily, i.p. for 4 days) or at toxicological (20mg/kg i.p.;45 min) doses. TR of ACh was not changed, as shown from the kinetic analysis of specific radioactivity curves for Ch and ACh. Diazepam (20mg/kg i.p.;30 min) increased steady-state levels of ACh by 36% but did not change the Ch levels. ACh TR after diazepam was decreased. Pentobarbital (60mg/kg i.p.;20 min) increased steady-state levels of ACh by 85% and Ch levels by 40%, with a time course correlated with the sleeping time. After pentobarbital, ACh TR was markedly decreased. Reserpine (3mg/kg i.v.)did not change levels of ACh, even during the period of most profound sedation. (Author abstract modified)

162437 Krnjevic, K. Dept. of Research in Anaesthesia, McGill Univ., McIntyre Medical Science Bldg., 3655 Drummond St., Montreal 109, Quebec, Canada Vasoconstriction by noradrenaline in the brain. **Nature New Biology (London). 242(121):244, 1973.**

In a letter to the editor criticizing a previous article, the vasoconstrictor action of noradrenaline (NA) in the cat's brain is reported. It was found that cortical arterioles are rather insensitive to NA, in contrast to arterioles in the cremasteris muscle, but are readily dilated by acid solutions. It is concluded that the release of NA from a more or less acid solution would be more likely to cause a local vasodilatation than vasoconstriction, as some workers have suggested. 8 references.

162438 Stone, T. W. Physiology Dept., Univ. of Aberdeen, Marischal College, Aberdeen AB9 1AS, Scotland Noradrenaline artefacts. **Nature New Biology (London). 242(121):244-245, 1973.**

Response to criticism of the suggestion that excitatory responses to iontophoretic noradrenaline could be mediated by constriction of small blood vessels in the brain is reported. There are reports of constrictor effects of 5-hydroxytryptamine (5-HT) on cerebral arteries. 5-HT has a dual action on blood flow to the head: flow to the areas supplied by the external carotid artery is increased but flow to areas supplied by the internal carotid artery is reduced. Net flow is unchanged. It is also relevant that lysergic acid diethylamine-25, which may antagonize some central 5-HT excitations, can also antagonize the cerebral vasoconstrictor action of this amine. It is concluded that reports have been made of a beta - adrenergic vasoconstrictor influence on brain blood vessels, which would explain the similarity of action of isoprenaline and noradrenaline. 9 references.

162439 Szabadi, E.; Bradshaw, C. M. Dept. of Psychiatry, Univ. of Edinburgh, Morningside Park, Edinburgh EH10 5HF, Scotland Noradrenaline artefacts: a reply. **Nature New Biology (London). 242(121):245, 1973.**

The excitatory responses of single neurones to 5-hydroxytryptamine (5-HT), isoprenaline and mescaline cannot be explained on the basis of an assumed vasoconstrictor action of the monoamines on small cerebral blood vessels. The similarity between the time courses of neuronal responses to noradrenaline and the three drugs could be explained by the similarity between the mobilities of the molecules of these monoamines. There is evidence that the kinetics of neuronal response are determined by physical processes, which in turn are largely determined by the mobility of the drug molecules. It is concluded that since physical factors are relevant in determining the kinetics of vascular responses, it is not surprising that vascular and neuronal responses to the same drug have similar time courses. 7 references.

162440 Brawley, P.; Johnson, E. Stewart. Dept. of Psychiatry, Univ. of Toronto, Toronto, Ontario, Canada Noradrenaline excitations: neuronal, not vascular. **Nature New Biology (London). 242(121):245-246, 1973.**

A critique of an article suggesting that noradrenaline (NA) excitations of central nervous system (CNS) neurones may be indirect effects due to localized vascular changes causing hypoxia is presented. It is suggested that the similarity between the pharmacology of NA excitations in the CNS and peripheral adrenergic pharmacology is due to the fact that CNS neuronal NA receptors bear some resemblance to their peripheral counterparts. The dependence of excitation latency upon firing rate suggests that noradrenergic and serotoninergic inputs to the cortex play a role in cortical dendritic tuning. The fact that NA and 5-hydroxytryptamine terminals are found principally in layers I and II of the neocortex supports this view. It is concluded that it is unlikely that hypoxia accounts for little if any of observed NA excitations. 14 references.

162667 Silver, Rae; Buntin, John. Institute of Animal Behavior, Rutgers University, 101 Warren St., Newark, NJ 07102 Role of adrenal hormones in incubation behavior of male ring doves (Streptopelia risoria). **Journal of Comparative & Physiological Psychology. 84(3):453-463, 1973.**

Male ring doves were injected with dexamethasone throughout a reproductive cycle in an attempt to suppress adrenocortical secretions and to test for initiation and maintenance of incubation behavior. Treated males showed normal initiation of sitting when observed in their cages; but when they were tested alone in novel cages, initiation of incubation tended to be disrupted. Prolonged dexamethasone treatment interfered with maintenance of incubation behavior in both test situations. The deleterious effect of dexamethasone on maintenance of home cage sitting was alleviated by concurrent treatment with prolactin or adrenocorticotropic hormone. In conclusion, adrenal secretions do not seem to be necessary for onset of incubation in males, but there are hormonal requirements for maintenance of this behavior. 35 references. (Author abstract)

162738 Krivoy, William A.; Zimmermann, Emery; Lande, Saul. NIMH, Addiction Research Center, Lexington, KY 40507 Facilitation of development of tolerance to morphine by desglycinamide9-lysine vasopressin (DGVP). (Unpublished paper). Lexington, Kentucky, NIMH, 15 p.

The development of tolerance to morphine by desglycinamide9-lysine vasopressin (DGVP) was investigated. DGVP facilitates development of tolerance to the analgesic action of morphine in mice if morphine is administered prior to the peptide. DGVP is not a morphine antagonist, and does not appear to cause either hyperalgesia, or alteration of the response to the technique used for evaluating analgesia. 14 references. (Author abstract modified)

162890 Swanson, L. W.; Marshall, G. R.; Needleman, P.; Sharpe, L. G. Department of Psychiatry, Washington University School of Medicine, St. Louis, MO 63110 Characterization of central angiotensin II receptors involved in the elicitation of drinking in the rat. **Brain Research (Amsterdam). 49(2):441-446, 1973.**

The central action of several analogs of angiotensin II drinking response in rats was investigated. The anatagonistic action of atropine and haloperidol as possible inhibitors on elicited drinking was also studied. Adult male albino rats were microinjected with drug solutions. Some degree of antagonism with respect to the drinking response was demonstrated with all tested angiotensin II analogs, with the exception of desPhe8. Pretreatments with various doses of analogs were followed by a microinjection without there being any evidence of antagonism to angiotensin II. Further attempts to inhibit drinking were conducted by angiotensin I and II injections. Results show that pretreatments with angiotensin analogs, atropine, and haloperidol, failed to inhibit water intake following microinjections of angiotensin II in the medial septal and preoptic regions of rats. These results are compared to earlier tests of C-terminal analog action of pressor response in vivo, and myotropic response in vitro. 24 references.

162892 Goodwin, G. M.; McGrath, G. J.; Matthews, P. B. C. University Laboratory of Physiology, Oxford, England The tonic vibration reflex seen in the acute spinal cat after treatment with DOPA. **Brain Research (Amsterdam). 49(2):463-466, 1973.**

The problem of whether the tonic vibration reflex could be produced in spinal preparation in the cat after treatment with dihydroxyphenylalanine (DOPA) is investigated. Six cats decerebrated between the colliculi and subsequently spinalized at T12 were used as subjects. The right soleus was prepared for myography and the rest of the leg widely denervated. The muscle investigated was both stretched and vibrated by seno-control. A dose of 80mg/kg DOPA was injected. The stretch reflex was elicited for a period of 30 minutes; afterwards muscle reverted to a toneless state. Further experimentation in DOPA treated spinal preparations is recommended. 16 references.

162893 Anderson, E. G.; Haas, H. L.; Hosli, L. Department of Pharmacology, University of Illinois, College of Medicine, Chicago, IL Comparison of effects of noradrenaline and histamine with cyclic AMP on brain stem neurones. **Brain Research (Amsterdam). 49(2):471-475, 1973.**

The effect of noradrenaline (NA) and histamine to increase the levels of cyclic 3',5'-adenosine monophosphate (AMP) in the brain of the cat is investigated. The results of microelectrophoretically administered NA and histamine in brainstem neurones structure is reported. Their interaction with pharmacological agents that have been reported to influence cyclic AMP is also discussed. Recordings were obtained from spontaneously firing neurones of the medulla oblongata in unanaesthetized decerebrate cats using multibarrel micropipettes. Cyclic AMP depressed the firing frequency of 54 neurones and had no effect on 14 cells when administered with currents of 80 NA or greater; no excitatory actions of cyclic AMP were observed; and no desensitatization to cyclic AMP was observed following repeated applications. Nicotinate and NA interaction on 14 stem neurones reduced depressant action on 7 cells. It was found that PGE1 also reduced the depressant action of NA on about half the cells. 12 references.

162894 Daly, John; Fuxe, Kjell; Jonsson, Goesta. Section of Pharmacodynamics, Laboratory of Chemistry, NIAMD, National Institutes of Health, Bethesda, MD 20014 Effects of intracerebral injections of 5,6-dihydroxytryptamine on central monoamine neurons: evident for selective degeneration of central 5-hydroxytryptamine neurons. **Brain Research (Amsterdam). 49(2):476-482, 1973.**

Evidence that steriotoxic injections of 5,6-dihydroxytryptamine (HT) provides a tool in the morphological and functional analysis of the central 5-HT neurons is presented. Degeneration of peripheral and central monoamine neurons is studied for the effect of intracerebral injections of neurotoxic compounds. Male Sprague-Dawley rats were injected either intraventricularly or intracerebrally with 5,6-HT. Amine fluorescence histochemistry analysis and in vitro uptake in slices from various brain regions were used in this study. Results showed that a dose dependent reduction of HT uptake is observed, and is particularly pronounced in the spinal cord. The uptake of HT in the cortex cerebri was practically unchanged. The fluorescence histochemistry revealed accumulations of yellow fluorescence in swollen and distorted fibers. The studies on the extensor hindlimb revealed a reduced enhancement of the reflex. Local injections of HT into raphe area were also performed and analyzed. 21 references.

162895 Versteeg, Dirk H. G. Rudolf Magnus Institute for Pharmacology, Medical Faculty University of Utrecht, Utrecht, The Netherlands Effect of two ACTH-analogs on noradrenaline metabolism in rat brain. **Brain Research (Amsterdam). 49(2):483-485, 1973.**

The effects of ACTH4-10 and ACTH4-10 (7Dphe) on noradrenaline metabolism in the brain was investigated. Male Wistar rats were injected with a single dose of ACTH analogs as a long acting zinc phosphate preparation. Control animals were injected with vehicle. The rate of synthesis of noradrenaline was calculated from the product of the rate constant of amine loss and the steady state levels of noradrenaline. ACTH4-10 caused a significant increase in the rate of synthesis of noradrenaline in a whole brain and brain stem compared with rats treated with placebo. No significant effect was found in the cortex. ACTH4-10 (7Dphe) did not materially affect the rate in either part. The extinction rate of a conditioned avoidance response and central noradrenaline turnover is also discussed. A study of the effects of ACTH analogs on the metabolism of biogenic amines in more discrete brain regions is also recommended. 11 references.

162921 Kryzhanovskiy, G. N.; Sheykhon, F. D.; Igon'kina, S. I. Laboratoriya patofiziologii infektsionnykh intoksikatsiy Instituta nromal'noy i patologicheskoy fiziologii AMN s SSR, Moskva /The effect of some substances of the phenothiazine series and of alpha-adrenergic blocking agents on spinal cord activity under conditions of disruption of inhibitory mechanisms by tetanus toxin./ Vliyaniye nekotorykh veshchestv fenotiazinovogo ryada i al'fa-adrenoblokatorov na aktivnost' spinnogo mozga v usloviyakh narusheniya tormoznykh mekhanizmov stolbnyachnym toksinom. **Farmakologiya i toksikologiya (Moskva). 36(3):276-280, 1973.**

The effect of chlorpromazine, trifluoperazine, phentolamine and dihydroergotoxin on the electrical activity of extensor and flexor muscles was investigated in mice with local tetanus and severed and intact spinal cords. Chlorpromazine produced inhibition of muscles in animals with an intact spinal cord. In animals with and without local tetanus this drug intensified local activity, as did other alpha-adrenergic blocking agents. Trifluoperazine did not produce this effect. The effect of the investigated adrenergic blocking agents on supraspinal structures included descending effects which evoke an inhibitory reaction at the spinal level, which is not eliminated by the tetanus toxin. 29 references.

162922 Arefolov, V. A.; Panasyuk, L. V.; Rayevskiy, K. S. Gruppa elektronnoy mikroskopii laboratorii farmakologii nervnoy sistemy Instituta farmakologii AMN SSSR, Moskva /Prevention of reserpine depletion of the catecholamine reserve with fluoracizine./ Preduprezhdeniye ftoratsizinom rezerpinovogo istoshcheniya zapasov katekholaminov. **Byulleten' Eksperimental'noy Biologii i Meditsiny (Moskva). 74(10):48-51, 1972.**

Prevention of reserpine depletion of catecholamine reserves with fluoracizine in rats is discussed. The content and distribution of catecholamines in the terminal fibers of the dura mater of rats were investigated by histochemical fluorescence of biogenic amines after administration of reserpine and a new antidepressant, fluoracizine. Results show that fluoracizine does not reduce reserves of the adrenergic carrier, but can prevent reserpine depletion of these reserves. 7 references.

162949 Wilensky, A. J.; Lowden, J. A. Research Institute, Hospital for Sick Children, Toronto, Ontario, Canada Interaction of diphenylhydantonin-4-14C with subcellular fractions of rat brain. **Canadian Journal of Physiology and Pharmacology (Ottawa). 50(4):346-353, 1973.**

The binding of diphenylhydantoin (DPH) to subcellular fractions of the brain of male rats which had been injected with DPH-4-14C and killed at intervals was studied. At most times the distribution of the radioactivity among the fractions was similar to that observed when the drug was added after homogenization. Twelve hours after injection there was increased concentration in a heavy microsomal fraction which contained mainly small nerve endings. Measurement of radioactivity in submitochondrial fractions indicated that redistribution was occuring during fractionation. Subcellular fractions from brains of uninjected rats were dialyzed against solutions containing DPH-4-14C and various electrolytes. DPH tends to bind to fractions containing plasma membranes. The degree of binding was decreased by the presence of calcium (Ca) ions in the dialysis solution while magnesium (Mg) ions had no effect. When both ions were present binding was the same as when they were not present. Data suggest that DPH interacts with plasma membranes by electrostatic forces and that this interaction is altered by Ca ion. 25 references.

162956 Faragalla, F. F. North Carolina Department of Mental Health, P.O. Box 7532, Raleigh, NC 27611 The subcellular distribution of lysergic acid diethylamide in the rat brain. **Experientia (Basel). 28(12):1426-1427, 1972.**

The subcellular distribution of lysergic acid diethylamide (LSD) in the rat brain was investigated. Fifteen minutes after an i.v. injection of LSD, almost 48% of the drug present in the brain was found in the supernatant fraction, 20% in the nuclear fraction, 15% in the synaptosome fraction, 6% in the microsomal fraction, 5% in the myelin fraction, and around 1.7% in the mitochondrial fraction. The synaptosome and mitochondrial fractions were almost saturated with LSD after an injection of 10mg/kg. 10 references.

162958 Kirsten, E. B.; Tseng, T. C. College of Physicians and Surgeons, Columbia University, 630 W. 168th St., New York, NY 10032 Effects of tybamate and pentylenetetrazol on spinal interneurons. **Experientia (Basel). 28(12):1459-1460, 1972.**

The effects of tybamate and pentylenetetrazol on spinal interneurons were investigated in cats. Administration of tybamate reduced the contralateral extensor response in a stepwise manner. Following depression of the contralateral extensor response by tybamate, pentylenetetrazol produced only a transient increase in the reflex. Further administration of pentylenetetrazol to a cumulative dose of 35mg/kg resulted in a stepwise return of the reflex to control levels. The antagonism of these drugs on spinal internuncial neurons was also studied. Tybamate abolished the evoked interneuronal activity. Two succeeding doses of pentylenetetrazol restored activity to slightly above control levels. Further administration of tybamate depressed activity a second time with recovery following an adequate dose of pentylenetetrazol. 12 references.

162960 Joo, F. Institute of Biophysics, Hungarian Academy of Sciences, Szeged, Hungary Effect of N6O2-dibutyryl cyclic 3',5'-adenosine monophosphate on the pinocytosis of brain capillaries of mice. **Experientia (Basel). 28(12):1470-1471, 1972.**

The effect of N6O2-dibutyryl cyclic 3',5'-adenosine monophosphate (cAMP) on the pinocytosis of brain capillaries of mice was investigated. There was a significant increase in the numbers of pinocytotic vesicles lying free and attached to the basement membrane 5 and 20 minutes after the treatment and also in the counts of coated vesicles 5 minutes but not 20 minutes after the dibutyryl cAMP administration. It appears that the evoked pinocytosis operates with approximately one quarter the efficiency of that existing normally in capillaries having intense macromolecular transport. 11 references.

162974 Bunney, B. S.; Aghajanian, G. K.; Roth, R. H. Connecticut Mental Health Center, 34 Park St., New Haven CT 06508 Comparison of effects of L-dopa, amphetamine and apomorphine on firing rate of rat dopaminergic neurones. **Nature New Biology (London). 245(143):123-125, 1973.**

The effects of L-dopa and apomorphine on the firing rate of dopaminergic neurones are compared with that of d-amphetamine, by extracellular recording from single dopamine containing cells in the substantia nigra zona compacta and adjacent ventral tegmental area of the rat midbrain. Parallel biochemical and histofluorescence studies were performed. Results indicate that apomorphine has a direct effect on dopamine receptors and that dopamine receptor stimulation is required for the depressant effect of haloperidol and chlorpromazine on dopamine neurones. 18 references.

162975 Segal, Menahem; Sims, Kenneth; Maggiora, Linda; Smissman, Edward. Laboratory of Neuropharmacology, NIMH, St. Elizabeth's Hospital, Washington, DC 20032 Analogues of gamma-aminobutyrate on rat hippocampal neurones. **Nature New Biology. 245(142):88-89, 1973.**

The effects of gamma-aminobutyrate (GABA) are compared with that of a series of aminocyclohexane carboxylic acid compounds on hippocampal neurones. These compounds offer a systematic variation of the distance between amino and carboxyl functional groups and possess the advantage of lacking the electromeric changes of amino and carboxy groups which are present in unsaturated aliphatic or aromatic ring analogues of amino acids. A differential effect of the conformers on uptake and physiological action indicate that different receptors exist for transmitter uptake and physiological action, each accepting a different conformational state of transmitter molecule. 19 references. (Author abstract modified)

163021 Krakoff, L. R.; Ginsburg, S. M. Dept. of Medicine, Mount Sinai School of Medicine, City University of New York, Fifth Ave. and 100th St., New York, NY 10029 Effect of chemical sympathectomy on pressor responses to norepinephrine, angiotensin and tyramine. **Experientia (Basel). 29(8):995-997, 1973.**

The pressor responses to infused norepinephrine, angiotensin II, and tyramine in control and 6-hydroxydopamine (6-OHDA) treated rats was studied. The pressure response to infused norepinephrine was markedly increased in sympathectomized animals. In view of the findings that adrenal catecholamine synthesis may be increased by this treatment, it is likely that increased adrenal catecholamine release in the 6-OHDA treated animals coupled with increased sensitivity to circulating norepinephrine accounts for the maintenance of arterial pressure at levels which are only slightly below normal. The response to tyramine was markedly diminished in sympathectomized animals illustrating the dependence of the tyramine response upon intact adrenergic innervation. There was no demonstrable alteration in the arterial pressure response to angiotensin II following chemical sympathectomy. 18 references.

163029 Tengerdy, Catherine E. Colorado State University Serotonin receptors of the rat brain, their interactions with methysergide. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-19892 HC$10.00 MF$4.00 171 p.**

Rat brain serotonin (5HT) receptor sites were studied for subcellular and regional distribution and for interaction with methysergide (MS), a structural analog of LSD that produces central effects similar to but less intense than d-LSD. MS inhibited 5HT binding by cortical pure cell nuclei and brainstem pure cell nuclei. MS inhibition was not significant in crude nuclear fractions, while inhibition by MS and 5HT binding by the cortical synaptosomal fraction was high. Autoradiographic study of the incorporated 3H label after incubation of the brain halves in .5micromole 5HT solution or in 5HT gave the distribution of 3H-5HT in the different brain structures of the mesencephalic and diencephalic coronal sections. Finally, MS did not significantly inhibit the 5HT uptake in these brain structures, but enhanced 3H incorporation 2.3fold as compared to control values in the limbic area. (Journal abstract modified)

163188 Cho, Arthur K.; Hodshon, Barbara J.; Lindeke, Bjorn; Miwa, Gerald T. Department of Pharmacology, School of Medicine, University of California, Los Angeles, CA 90024 Application of quantitative GC-Mass spectrometry to study of pharmacokinetics of amphetamine and phentermine. **Journal of Pharmaceutical Sciences. 62(9):1491-1494, 1973.**

Quantitative GC-mass spectrometric assays were used to determine plasma and brain levels of amphetamine and phentermine. Deuterium substituted variants of the two amines were used as internal standards in the procedures, which were sensitive to 10 pmoles/ml. The levels in rats given doses of 0.5mg/kg. i.v. were examined in terms of a two compartment open model. Levels of amphetamine were also examined after bilateral nephrectomy. 4 references. (Author abstract)

163313 Munson, Edwin S.; Wagman, Irving H. University of Florida College of Medicine, Department of Anesthesiology, Gainesville, FL 32601 Elevation of lidocaine seizure threshold by gallamine. **Archives of Neurology. 28(5):329-333, 1973.**

Arterial plasma lidocaine seizure thresholds were measured in rhesus monkeys, with and without gallamine triethiodide immobilization. Electrical brain activity was recorded via chronically implanted electrodes placed in various corti-

cal and subcortical depths. Immobilized Ss had artificial respiration. Lidocaine was given intravenously until electrical seizure activity began. In 11 experiments with five Ss, mean plus or minus standard deviation plasma lidocaine levels at which seizures occurred were 25.5microg/ml plus or minus 3.0microg/ml in controls and 36.2microg/ml plus or minus 4.5mircrog/ml in Ss treated with gallamine. The 42% increase in seizure threshold during muscle relaxant immobilization indicates that gallamine possesses a significant effect on the sensitivity of the central nervous system to lidocaine. Findings are important in consideration of drug interactions and in use of muscle relaxant agents during physiologic experimentation. 25 references. (Author abstract modified)

163320 Geisler, Arne; Wraae, Olaf; Olesen, Ole Vendelin. Psychopharmacology Research Unit, Aarhus University Psychiatric Institute, State Mental Hospital, 8240 Risskov, Denmark Adenyl cyclase activity in kidneys of rats with lithium-induced polyuria. **Acta Pharmacologica et Toxicologica (Kobenhavn). 31(3):203-208, 1972.**

Renal adenyl cyclase activities in rats in which polyuria had been made constant by the addition of lithium chloride to their food for 3 weeks were determined and compared with the activities in kidneys of control rats. Adenyl cyclase activities were determined as the amount of cyclic AMP-14C formed from ATP-14C; cyclic AMP was isolated by the method of Krisna and Birnbaumer (1970). Polyuric rats and control rats did not differ in unstimulated and fluoride stimulated adenly cyclase activities, but polyuric rats showed a lower vasopressin induced increase (39%) than did the control rats (69%). The lithium concentration in the incubate was below the limit of detection. Results indicate that inhibition of the vasopressin stimulated adenly cyclase in the kidney is the cause of vasopressin resistant polyuria produced by lithium. 15 references.

163321 Broch, Ole Jacob, Jr. Department of Pharmacology, University of Bergen Medical School, Haukelandsveien 10, 5000 Bergen, Norway The in vivo effect of tropolone on dopamine metabolism and the catechol-O-methyl transferase activity in the striatum of the rat. **Acta Pharmacologica et Toxicologica (Kobenhavn). 31(3):217-225, 1972.**

The effect of tropolone (100mg/kg intraperitoneally) on dopamine metabolism in the corpus striatum of rats was studied. The catechol-O-methyl tranferase (COMT) and monoamine oxidase (MAO) activities were measured as were the concentrations of dopamine (DA) and its metabolites 3-methoxytyramine (3-MT), 3,4-dihydroxyhenylacetic acid (DOPAC) and homovanillic acid HVA). The amine synthesis was estimated by measuring the accumulation of radioactive metabolites after a constant rate infusion of 14C-tyrosine in tropolone treated and normal rats. In the striatum the tissue concentration of tropolone was reduced by 90% during the first 2.5hours. Tropolone caused a rapid reduction in the methylated metabolites (3-MT and HVA) while the concentrations of DA and its deaminated metabolite DOPAC were increased. Results from the studies with 14C-tyrosine suggest a reduced DA synthesis rate. All metabolite concentrations returned to normal within 24 hours. After a 20 minutes infusion with 14C-tyrosine a higher radioactivity was found in the fractions of the metabolic end products than in the amine fractions. This finding might indicate an initial turnover of DA in order of minutes and may be a reflection of a multicompartment system for amine storage. 18 references. (Journal abstract modified)

163534 Russi, Gary Dean. University of Kansas Studies on the effect of cyclazocine, a benzomorphan derivative, on the sympathetic nervous system. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. Mfilms, No. 73-11951 HC$10.00 MF$4.00 130 p.**

A study to determine if cyclazocine, a benzomorphan derivative, alters adrenergic activity in a manner similar to imipramine by interfering with the uptake of norepinphrine at sympathetic nerve terminals is presented. In anesthetized rats, cylazocine potentiated the pressor response to norepinephrine, epinephrine, tyramine, metaraminol, phenylephrine, and carotid occlusion. The depressor response to isoproterenol and the pressor response to angiotensin were not potentiated. Cyclazocine potentiated the pressor response to norepinephrine in adrenalectomized or pithed rats. The ability of cyclazocine to potentiate the pressor response of norepinephrine was abolished by 6-hydroxydopamine. Biochemical determinations further demonstrated a cyclazocine induced alteration of adrenergic activity. It was concluded that cyclazocine acts to alter uptake of amines by adrenergic neurons. (Journal abstract modified)

163535 Overstreet, David Harold. University of California, Irvine Biological mechanisms underlying the development of behavioral tolerance to diisopropylfluorophosphate. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-11656 HC$10.00 MF$4.00 227 p.**

The biological mechanism that permits albino rats to develop behavioral tolerance to the organophosphorus anticholinesterase, diisopropylfluorophosphate (DFP) was studied in an effort to find the mechanisms underlying tolerance to and physical dependency upon some of the more exotic drugs such as morphine. The characteristics of tolerance to DFP in a number of different situations were compared, and the receptor change hypothesis of tolerance to DFP was explored. Areas in the central nervous system where muscarinic receptor changes might be occurring during chronic DFP treatment were determined. The results support the hypothesis that a reduction in the sensitivity of cholinergic receptors is one mechanism underlying the development of behavioral tolerance to DFP. It is suggested that a change in the sensitivity of receptors to their neurotransmitters may be one mechanism that underlies the development of tolerance to many diverse chemical agents. (Journal abstract modified)

163630 Abreu, L. A.; Abreu, R. R. Laboratory of Biochemistry, Instituto Oswaldo Cruz, P.O. Box 926-ZC-00, Rio de Janeiro, Brazil Effect of lithium on brain aconitase activity. **Experientia (Basel). 29(4):446-447, 1973.**

The question of whether any significant differences in brain aconitase activity occur in mice on long term treatment with Li2CO3 was examined. Male Swiss mice were treated with 100mg of Li2CO3 for 108 days. Administration of the solution did not influence the final body weights of the animals. A statistically significant inhibition of the specific brain aconitase activity was observed, though this effect was observed in vivo and not in vitro. Further studies are necessary to define whether the effects of the solution on these enzymes have any connection with the clinical effects of the drug. 10 references.

163633 Heiss, W.-D.; Hoyer, J.; Poustka, F. Institut fur allgemeine und vergleichende Physiologie der Universitat, Schwarzspanierstrasse 17, A-1090 Wien, Austria Participation of retinal mechanisms in DMT hallucinations. **Experientia (Basel). 29(4):455-457, 1973.**

The effect of N,N-dimethyltryptamin (DMT), whose action is similar to D-lysergic acid diethylamide (LSD) but of shorter duration, on activity of retinal neurons was studied in 11 adult cats, with special consideration given to spontaneous discharge highly affected in other brain structures. The results showed that DMT in dosages leading to hallucinations in man does not affect only the snyaptic transmission in the lateral geniculate body but also the phasic response and the spontaneous activity of retinal ganglion cells. The depressing effect of DMT on the spontaneous activity is in correspondence with its action on other neurons. This alteration may be of some relevance for the origin of optic hallucinations. The DMT action on the activity of retinal neurons may be interpreted as indirect evidence for the existence of 5-HT as a transmitter in those retinal synapses which are of special importance for the origin and/or transmission of spontaneous activity. 26 references.

163695 Sanghvi, Indravadan; Geyer, Harry M.; Gershon, Samuel. Neuropsychopharmacology Research Unit, New York University Medical Center, 550 First Avenue, New York, NY 10016 The effect of lithium on adrenergic function in dog. **Life Sciences (Oxford). 12(8):337-344, 1973.**

The effect of acute and chronic lithium administration on the pressor response to norepinephrine and tyramine in anesthetized and conscious dogs is compared. In anesthetized dogs, acute lithum (50mg/kg i.p.)administration caused a significant potentiation of the pressor response to norepinephrine but had no effect on tyramine induced response. Following chronic administration of lithium (600mg/day, 7-10 days) pressor response to both sympathomimetic agents was markedly decreased. In contrast, in conscious dogs, acute or chronic lithium administration failed to modify the pressor response to either agent. These latter results are at variance to those reported in man. Differences in species and methodology may account for this discrepancy. Results are discussed in light of known effects of lithium on biogenic amines. It is concluded that the serum lithium concentrations in both series of experiments were within the therapeutic range found to be beneficial in the treatment of affective disorders. 16 references. (Journal abstract)

163697 Baumgarten, H. G.; Lachenmayer, L.; Bjorklund, A.; Nobin, A.; Rosengren, E. Department of Anatomy and Neuroanatomy, University

of Hamburg, Hamburg, W. Germany Long-term recovery of serotonin concentrations in the rat CNS following 5,6-dihydroxytryptamine. **Life Sciences (Oxford). 12(8):357-364, 1973.**

The process of 5-hydroxytryptamine (5-HT) recovery after injection of 5,6-dihydroxytryptamine (5,6-DHT) was followed up to half a year to determine if the tendency toward increased serotonin concentration reported in earlier short-term studies was only transitory or continued during the following months to restore normal serotonin levels in the brain. After the initial depletion of 5-HT in the brain and spinal cord, persisting during the first 2 weeks after an intraventricular injection of 75micrograms 5,6-DHT, there was gradual recovery of 5-HT levels in several brain regions to normal or even supranormal levels by 2-4 months after injection. The rise in 5-HT concentration was most pronounced in septum and in hypothalamus. A significant recovery was also observed in pons plus medulla oblongata, mesencephalon, striatum and telenchephalic structures. In the spinal cord, no significant recovery of the 5-HT concentrations occurred within 6 months after injection. Supported by parallel fluorescence microscopical studies, the long-term recovery of the brain 5-HT concentrations is interpreted as due to a powerful regenerative growth of serotonin axons lesioned by the 5,6-DHT treatment. 12 references.

163737 Robbins, Trevor W.; Iversen, Susan D. Department of Experimental Psychology, Downing Street, Cambridge, CB2 3EB, England Amphetamine-induced disruption of temporal discrimination by response disinhibition. **Nature New Biology. 245(145):191-192, 1973.**

Amphetamine induced changes in differential reinforcement of low ratings of responding (DRL) performance in the rat are analyzed in terms of signal detection theory. Using this method, a distinction can be made between sensitivity changes and response bias changes. It was found that at low doses of amphetamine a change in response bias is evident in the absence of a change in sensitivity to the temporal cues controlling the behavior. In this experiment, 12 male albino rats were trained on a DRL schedule of reinforcement to achieve stable baseline performance. Five doses of D-amphetamine were used. The number of reinforcements and magazine responses were recorded. Interresponse time distribution was obtained. It is suggested that changes in response inhibitions were occurring. There was a tendency for increases in conditional probability of responding in all bins with dose levels greater than .05mg. Further work is in progress on other forms of discrimination behavior to test the generality of the hypothesis of this study. 12 references.

163748 Goldstein, Dora B. Department of Pharmacology, Stanford University School of Medicine, Stanford, CA 94305 Convulsions elicited by handling: a sensitive method of measuring CNS excitation in mice treated with reserpine or convulsant drugs. **Psychopharmacologia (Berlin). 32(1):27-32, 1973.**

A sensitive method of measuring central nervous system (CNS) excitation in mice treated with reserpine or convulsant drugs is reported. Mice treated with reserpine, picrotoxin or pentylenetetrazol showed convulsions on handling. These seizures closely resembled the previously described convulsions on handling in mice undergoing alcohol withdrawal reactions. The mildest form of the convulsion was tonic, in a characteristic posture, and was evoked by gently spinning the mouse by the tail. More severely affected mice showed clonic seizures when simply lifted by the tail. Reserpine treated mice had no spontaneous seizures but convulsions could be repeatedly elicited by handling for about 24 h after a single dose. Mice treated with picrotoxin or pentylenetetrazole showed elicited convulsions at doses that were too low to cause spontaneous seizures or at times when the overt convulsant action had ceased. The number of mice showing elicited convulsions was dose related. Strychnine treatment caused convulsions on handling only at near lethal doses and then in only a few mice. It is suggested that convulsions on handling may be useful as a simple empirical sign of CNS hyperactivity in mice. 9 references. (Author abstract)

163749 Leonard, B. E. Pharmacology Department, Organon, Oss, The Netherlands Some effects of the hallucinogenic drug 2,5-dimethoxy-4-methyl amphetamine on the metabolism of biogenic amines in the rat brain. **Psychopharmacologia (Berlin). 32(1):33-49, 1973.**

The effects of the hallucinogenic drug, 2,5-dimethoxy-4-methyl amphetamine (DOM) on the metabolism of biogenic amines in the rat brain were studied in rats. DOM caused piloerection, behavioral stimulation and pronounced head twitching in high doses (60mg/kg). Lower doses had a less marked effect. DOM reduced the brain

concentration of noradrenalin and elevated that of 5-hydroxytryptamine. Brain dopamine was initially elevated and then reduced by the drug. Tritiated tyrosine and tryptophan were used to study the effect of DOM on the rate of incorporation of these amino acids into the biogenic amines. It was found that DOM increased the rate of incorporation of tyrosine into noradrenaline but reduced the incorporation of tryptophan into 5-hydroxytryptamine. This effect on the turnover of noradrenalin and 5-hydroxytryptamine is shared by other hallucinogenic substances but not by the stimulant amphetamines. 34 references. (Author abstract)

163757 Steinert, Harriett R.; Holtzman, Stephen G.; Jewett, Robert E. Emory University, Department of Pharmacology, Atlanta, GA 30322 Some agonistic actions of the morphine antagonist levallorphan on behavior and brain monoamines in the rat. **Psychopharmacologia (Berlin). 31(1):35-48, 1973.**

The effects of levallorphan, a narcotic antagonist analgesic, were studied on locomotor activity, operant behavior (continuous avoidance schedule), and brain monoamine content in the rat. Levallorphan produced an increase in locomotor activity and in the rate of avoidance responding. Brain norepinephrine was significantly decreased 1 h after 256mg/kg of levallorphan. Brain dopamine (DA) levels were lowered by 64 and 256mg/kg of levallorphan. There was no effect on brain serotonin levels. The stimulant effects of levallorphan on operant behavior were blocked by simultaneous administration of naloxone. Naloxone alone had no consistent effect on either of the behaviors under observation or on brain monoamine content. These findings indicate that levallorphan is a stimulant of behavior in the rat, and that the stimulant action is mediated by at least two mechanisms: one which is blocked by naloxone, and one which is not. Furthermore, it is suggested that the rat should be considered as a possible animal model in which to study the agonistic properties of certain narcotic antagonist analgesics on behavior. 24 references. (Author abstract modified)

163763 Hanin, I.; Cheney, D. L.; Trabucchi, M.; Massarelli, R.; Wang, C. T.; Costa, E. NIMH, St. Elizabeths Hospital, William A. White Bldg., Room 134, Washington, DC 20032 Application of principles of steady-state kinetics to measure acetylcholine turnover rate in rat salivary glands: effect of deafferentation and duct ligation. **Journal of Pharmacology and Experimental Therapeutics. 187(1):68-77, 1973.**

A radio gas chromatographic method to measure choline and acetylcholine specific activities in tissue extracts was used to study the effect of parasympathetic decentralization (chorda tympani section) and duet ligation on turnover rates of acetylcholine in the usbmaxillary and sublingual glands of rats, in vivo. Steady state kinetic principles were used in the mathematical analysis of the precursor product relationship assuming a simplified kinetic model. The analysis indicates that decentralization significantly reduces acetylcholine turnover rate in the salivary glands, whereas duct ligation has no significant effect on this turnover rate. 35 references. (Author abstract)

163764 Locke, Steven; Cohen, Gerald; Dembiec, Dorothy. Mt. Zion Hospital, San Francisco, CA Uptake and accumulation of 3H-6,7-dihydroxytetrahydroisoquinoline by peripheral sympathetic nerves in vivo. **Journal of Pharmacology and Experimental Therapeutics. 187(1):56-67, 1973.**

The uptake and accumulation of 3H-6,7-dihydroxytetrahydroisoquinoline by peripheral sympathetic nerves in vivo were studied in mice and rats. When administered intravenously, the 3H-alkaloid was taken up into the mouse heart and into the submaxillary glands and irises of rats. Additionally, uptake into adrenal glands was also observed. Chemically denervated (6-hydroxydopamine treated) mice and use of catecholamine uptake inhibitors (cocaine and desmethylimipramine) diminished uptake of the 3H-alkaloid into the heart by 48 to 79%. Surgically denervated rats resulted in a reduction of 3H-alkaloid by 75 to 84% in the iris and by 39 to 53% in the submaxillary gland. In denervated preparations, or after cocaine or desmethylimipramine, the 3H-alkaloid was more extensively metabolized. Neuronal 3H-alkaloid was relatively protected from metabolic transformation. The relationship of these observations to a hypothesis about tetrahydroisoquinoline biosynthesis from endogenous catecholamines during ethanol metabolism is discussed. 50 references. (Author abstract modified)

163767 Langelier, P.; Roberge, Andree G.; Boucher, R.; Poirier, L. J. Laboratoire de Neurobiologie, Faculte de Medecine, Universite Laval, Quebec, Canada Effects of chronically administered L-dopa in normal and lesioned cats.

Journal of Pharmacology and Experimental Therapeutics. 187(1):15-26, 1973.

The effects of chronically administered L-dopa in normal and lesioned cats were examined. The administration of a single dose of L-dopa to cats with a lesion of the dopaminergic nigrostriatal pathway and to normal cats resulted in a conspicuous increase of dopamine (DA) and homovanillic acid (HVA) in the thalamus; hypothalamus and neostriatum. The maximal DA and HVA increases are associated with a significant decrease of serotonin as determined in the thalamus and hypothalamus. The administration of L-dopa during several consecutive days to similar groups of cats resulted in more conspicuous HVA increases in the same tissues, and, moreover, the maximal increase of DA is reached sooner than after a single dose of L-dopa. This treatment was also associated with a greater serotonin decrease than after a single dose of L-dopa. In both experimental conditions (single dose or chronic administration of L-dopa) the DA and HVA values in the intact striata were higher than those determined in the striatum of the lesioned side where the concentrations of DA were somewhat similar to those found in the thalamus and hypothalamus. The results suggest that the administration of large amounts of L-dopa leads to the formation of DA and HVA in nervous structures which, in the absence of dopa treatment form small amounts of DA. 51 references. (Author abstract)

163772 Singer, G.; Coyle, I. R. Department of Psychology, La Trobe University, Bundoora, Victoria, Australia The effect of imipramine administered before and during pregnancy on litter size in the rat. **Psychopharmacologia (Berlin). 32(4):337-342, 1973.**

In order to determine whether antidepressants administered during pregnancy result in an increase in fetal and neonatal morbidity, the effects of imipramine administered before and during pregnancy on litter size in the rat were examined. Imipramine was found to cause a significant reduction in litter size with doses that are used therapeutically. 18 references. (Author abstract)

163775 Genovese, Eugenio; Zonta, Nerina; Mantegazza, Paolo. II Cattedra di Farmacologia, Via Vanvitelli 32, I-20129 Milano, Italy Decreased antinociceptive activity of morphine in rats pretreated intraventricularly with 5,6-dihydroxytryptamine, a long-lasting selective depletor of brain serotonin. **Psychopharmacologia (Berlin). 32(4):359-364, 1973.**

The antinociceptive activity of morphine was measured in rats treated with 5,6-dihydroxytryptamine, through cannuli chronically implanted into both lateral ventricles of the brain. This indoleamine, which induces a selective degeneration of serotoninergic nerve terminals in the central nervous system, markedly decreased the effect of morphine. The possible role of 5-hydroxytryptamine on antinociceptive activity of morphine is discussed. 31 references. (Author abstract)

163776 Glick, S. D.; Zimmerberg, B.; Charap, A. D. Beth Israel Medical Center, Bernstein Institute, 307 Second Ave., New York, NY 10003 Effects of alpha-methyl-p-tyrosine on morphine dependence. **Psychopharmacologia (Berlin). 32(4):365-371, 1973.**

The effects of alpha-methyl-p-tyrosine (aMpT) on the initial liability to consume oral morphine solution and on withdrawal following cessation of passive morphine administration were assessed in rats. aMpT depressed consumption of oral morphine solution if aMpT was administered throughout a 9 day period of morphine intake; when aMpT administration was stopped 1 day prior to presentation of morphine solution, subsequent intake of morphine was enhanced. Following cessation of passive morphine administration, aMpT was found to ameliorate withdrawal induced weight loss; this effect occurred to a similar extent regardless of whether aMpT was administered only during the first withdrawal day, only on days of morphine administration or during both periods of morphine administration and withdrawal. These results implicate an important role of catecholamines in addiction and dependence to morphine. 14 references. (Author abstract)

163779 DeFeudis, F. V. Department of Anaesthesia Research, McGill University, Montreal, Canada Effects of d-amphetamine on the incorporation of carbon atoms of D-mannose into the brains and sera of differentially housed mice: short-term reversibility of these effects. **Biological Psychiatry. 7(1):3-9, 1973.**

The effects of d-amphetamine on the incorporation of carbon atoms of D-mannose into the brains and sera of differentially housed mice were studied in light of their short-term reversibility. Incorporation into brain of carbon atoms of sub-

cutaneously administered D-mannose occurred to a greater extent in aggregated than in isolated mice. The effects of differential housing on the incorporation of carbon atoms into brain and serum were altered markedly by short-term (1 1/2 hr) changes in environment. The action of injected d-amphetamine on carbon atom entry into brain and serum was also found to be heavily dependent on the prior housing conditions of mice, and was also modified by short-term changes in environment. The results obtained indicate that dramatic changes in both cerebral and peripheral energy metabolism and the actions of psychoactive drugs can be produced by the differential housing of mice, and that these changes can be modified rapidly by short-term exposure of the mice to various experimental conditions. 13 references. (Author abstract modified)

163780 Vazquez, A. J.; Krip, G. Department of Pharmacology, The Chicago Medical School/University of Health Sciences, Chicago, IL Interactions between amphetamine and serotonergic agents on cat's isolated cerebral cortex. **Biological Psychiatry. 7(1):11-22, 1973.**

The epileptiform afterdischarge (EAD) elicited in chronically isolated cortical stabs was used to study the extent and the mechanism of the cortical action of serotonin and of amphetamine in cat brain. EAD duration was significantly decreased by the administration of d-amphetamine or by increasing cerebral levels of serotonin by administering a peripheral decarboxylase inhibitor (R04-4602) and 5-hydroxytryptophan (5HTP). Serotonin antagonists (methysergide, cyproheptadine, and methergoline) or depleters (p-bromomethamphetamine and p-chlorophenylalanine) significantly increased EAD duration. The decrease in EAD duration produced by amphetamine or 5HTP and R04-4602 was prevented by the serotonin antagonists. The increase in EAD duration produced by serotonin depleting agents could be overcome by the administration of R04-4602 and 5HTP, but not by the administration of d-amphetamine (5 mg/kg). The results suggest that in spite of the lack of histochemical evidence for serotonergic neurons in cortex, there may be serotonergic linkages that can control cortical epileptiform activity and that the central actions of amphetamine might be exerted by releasing serotonin from its storage sites. 34 references. (Author abstract)

163793 Medon, Philip J.; Leeling, Jerry L.; Phillips, Barrie M. Toxicology Department, Research Division, Miles Laboratories, Inc., Elkhart, IN 46514 Influence of quipazine, a potential anti-parkinsonian agent on the uptake of 3H-dopamine and 3H-serotonin into rat striatal tissue in vitro. **Life Sciences (Oxford). 13(6):685-691, 1973.**

Quipazine (2-(1-piperazinyl) quinoline maleate), an agent with antitremorine and serotonin like activity, was studied in the inhibition of the uptake of 3H-dopamine and 3H-serotonin into rat striatal tissue in vitro. Quipazine was shown to be three times more effective as an inhibitor of serotonin uptake than dopamine uptake. The data suggest that quipazine exerts serotonergic and dopaminergic effects in the central nervous system. 20 references. (Author abstract modified)

163797 Gupta, M. L.; Gupta, T. K.; Bhargava, K. P. Department of Pharmacology and Therapeutics, King George's Medical College, Lucknow-3, India Evidence for non-involvement of central catecholamines in copper acetate induced ovulation. **Japanese Journal of Pharmacology (Kyoto). 23(1):1-4, 1973.**

The effect of reserpine and phenoxybenzamine pretreatment was studied on copper acetate induced ovulation in rabbits. It was observed that neither reserpine nor phenoxybenzamine prevented the ovulatory response of the copper salt. The findings indicate that copper induced ovulation does not appear to be mediated through the involvement of central adrenergic mechanisms. 17 references. (Author abstract)

163798 Chiba; Sukehiro; Nagawa, Yuji. Biological Research Laboratories, Takeda Chemical Industries, Ltd., Higashiyodogawa-ku, Osaka, Japan Effects of new s-triazolobenzodiazepine (D-40TA) and other central muscle relaxants on spinal and supraspinal reflexes in cats. **Japanese Journal of Pharmacology (Kyoto). 23(1):83-96, 1973.**

The inhibitory effect of benzodiazepine type agents such as 8-chloro-6-phenyl-4H-s-triazolo (4,3a)(1,4)benzodiazepine (D-40TA), diazepam and nitrazepam on the spinal and supraspinal polysnaptic reflexes was compared with that of mephenesin, methocarbamol, chlorzoxazone and chlormezanone in cats. Benzodiazepines did not depress the spinal and supraspinal polysynaptic reflexes or reflex potentials in the spinal and the gallamine immobilized cats. In these respects, chlormezanone resembled benzodiazepines. On

the other hand, mephenesin, methocarbamol and chlorzoxazone blocked these reflexes in all kinds of preparations such as the anesthetized, the spinal, the decerebrate and the gallamine immobilized preparations. D-40TA depressed gamma rigidity at the dose below that necessary to depress alpha rigidity. Moreover, it inhibited more profoundly the tonic stretch reflex than the phasic one. Spontaneous and evoked discharges of the muscle spindle in the decerebrate cat were significantly depressed by D-40TA, while those of spinal cat were unaffected. These results suggest that skeletal muscle relaxation by benzodiazepines including D-40TA is attributed to the primary depression of the brain stem reticular system and in turn the ascending inhibitory action via the gamma system on the spinal and supraspinal polysynaptic neurons. 27 references. (Author abstract modified)

163801 Sinclair, John G. Faculty of Pharmaceutical Sciences, University of British Columbia, Vancouver 8, British Columbia, Canada Dextromethorphan-monoamine oxidase inhibitor interaction in rabbits. **Journal of Pharmacy and Pharmacology (London). 25(10):803-808, 1973.**

Dextromethorphan monoamine oxidase (MAO) interaction in rabbits and cats is reported. Dextromethorphan produced symptoms characterized by motor restlessness, tremor, extreme hyperpyrexia and death in rabbits pretreated with phenelzine sulphate or nialamide HCl,42 and 18 h before temperature recording. The dextromethorphan - MAO inhibitor interaction appeared to be due to a 5-hydroxytryptamine potentiation. In the unanesthetized cat nictitating membrane preparation, dextromethorphan markedly enhanced the response of noradrenaline and 5-HT but antagonized the effects of tyramine. It is suggested that dextromethorphan blocks the uptake of these amines in the adrenergic nerve endings. 35 references. (Author abstract modified)

163802 Brown, Roger; Engel, Jorgen. Department of Pharmacology, University of Goteborg, Goteborg, Sweden Evidence for catecholamine involvement in the suppression of locomotor activity due to hypoxia. **Journal of Pharmacy and Pharmacology (London). 25(10):815-819, 1973.**

Evidence for catecholamine involvement in the suppression of locomotor activity due to hypoxia is reported. Locomotor activity of mice under 12 or 21% oxygen in nitrogen was measured. Under 12% oxygen there was a decrease in locomotor activity which was not reversed by administration of amphetamine; however, administration of a subthreshold dose of L-dopa in combination with a peripheral decarboxylase inhibitor before the amphetamine restored the locomotor stimulant action of the drug under hypoxia. In contrast to amphetamine, the increase in locomotor activity after the administration of a combination of noradrenaline and dopamine receptor stimulating agents, clonidine plus apomorphine respectively, was not inhibited by hypoxic conditions. Data suggest an involvement of central catecholamine neurotransmission in the disruption of locomotor activity due to hypoxia. 26 references. (Author abstract)

163803 Jobe, Phillip C.; Picchioni, Albert L.; Chin, Lincoln. College of Pharmacy and Allied Health Professions, Northeast Louisiana University, Monroe, LA 71201 Effect of lithium carbonate and alpha-methyl-p-tyrosine on audiogenic seizure intensity. **Journal of Pharmacy and Pharmacology (London). 25(10):830-831, 1973.**

The effects of lithium carbonate and alpha-methyl-p-tyrosine (alpha-MT) on audiogenic seizure intensity were studied in rats. Simulataneous administration of lithium carbonate and alpha-MT markedly enhanced the intensity of seizures, whereas each drug administered singly had no effect. This is interpreted in light of a report that the combination of lithium plus alpha-MT produced a severe depletion of brain noradrenaline stores in rats, whereas alpha-MT alone produced only a moderate decrease, and lithium produced no effect at all. In comparison, alpha-MT depleted brain dopamine to as great an extent as did lithium plus alpha-MT. Lithium alone produced only a slight decrease in dopamine levels. The observations lend support to the concept that seizure enhancement correlates better with severely low noradrenaline levels than with low dopamine levels. A moderate decrease in brain noradrenaline may occur without an accompanying change in seizure intensity. These findings provide confirming evidence of the importance of noradrenaline as a modulator of audiogenic seizures. 6 references.

163804 Fuller, Ray W.; Snoddy, Harold D.; Molloy, Bryan B. The Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN Effect of some lipid-soluble derivatives of amphetamine on amphetamine levels in rat brain. **Journal of Pharmacy and Pharmacology (London). 25(10):828-829, 1973.**

The effects of some lipid soluble derivatives of amphetamine on amphetamine levels in rat brain were examined. Both fenfluramine and 3-trifluoromethyl-alpha-methylbenzylamine significantly increased the levels of amphetamine in rat brain and blood and also in liver but these increases were smaller although statistically significant. Findings support the idea that the effects were due to an inhibition of amphetamine metabolism. The inability of the chloroamphetamines to act similarly indicates that lipid-solubility and an unoccupied para position alone are not sufficient to interfere with the metabolism of amphetamine; 3-trifluoromethyl-alpha-methylbenzylamine having one methylene unit less than norfenfluramine in the side chain, was able to elevate amphetamine levels. The results suggest that inhibition of amphetamine metabolism is not simply a consequence of the structural similarity of the two inhibitors to that of amphetamine but is a property that they share with agents which are known to retard the transport of other monoamines across cellular membranes and to inhibit amphetamine metabolism. A common mechanism of action by which various drugs inhibit amphetamine metabolism may involve antagonism of amphetamine transport across a membrane to the locus of hydroxylation. 4 references. (Author abstract modified)

163882 Buttram, James Morrison. University of Tennessee Medical Units, Memphis, TN Adrenergic receptor roles in epinephrine reversal by chlorpromazine. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-19139 HC$10.00 MF$4.00 152 p.**

Experiments on cats designed to define more precisely the role of adrenergic receptor mechanisms in epinephrine antagonism by chlorpromazine and to elucidate chlorpromazine's potentiating action on beta receptor responses are discussed. The data suggest that beta mediated response augmentation after chlorpromazine is due to the inability of the agonist drugs to discriminate precisely between the peripheral vascular alpha and beta receptors. It is also suggested that alpha receptor blockade by chlorpromazine may account for the augmentation of peripheral beta receptor mediated responses. (Journal abstract modified)

164809 Des Rosiers, Michel; Grave, Gilman D.; Kupferberg, Harvey J.; Kennedy, Charles. Lab. of Cerebral Metabolism, National Institute of Mental Health, Bethesda, MD 20014 Effects of diphenylhydantoin on local cerebral blood flow. (Unpublished paper) NIMH, 1973, 10 p. Bethesda, MD.

The effects of diphenylhydantoin on local cerebral blood flow were investigated. In the rats studied during the 3-minute diphenylhydantoin (DPH) infusion, no behavioral change was observed although drug levels attained were relatively high. Their local cerebral blood flow (LCBF) was found to be slightly higher than in controls as evidenced by larger mean values obtained in 20 out of 22 structures. The mean percent change in gray and white matter was almost identical. These studies demonstrate two distinct actions on DPH on the cerebral vasculature. One is obtained while the agent is predominately inside the vascular compartment, which results in a slight increase in cerebral blood flow. The other takes place after its uptake by brain and when tissue concentrations exceed that in the plasma. It is suggested that the action which results in a reduction in LCBF is secondary to a variable reduction in local cerebral metabolic rate. 12 references. (Author abstract modified)

164834 Doteuchi, M.; Costa, E. Laboratory of Preclinical Pharmacology, NIMH, St. Elizabeths Hospital, Washington, DC 20032 Pentylenetetrazol convulsions and brain catecholamine turnover rate in rats and mice receiving diphenylhydantoin and benzodiazepines. Bethesda, MD, NIMH, 1973, 38 p.

Doses of benzodiazepines that decrease catecholamine turnover rate in various brain parts of normal and cold exposed animals were assessed to determine if they also antagonize pentylenetetrazol convulsions. It was found that diazepam, dismethyldiazepam and chlordiazepoxide in doses that protect 80% of the rats tested from pentylenetetrazol convulsions also reduce the turnover rate of striatal dopamine (DM) and norepinephrine (NE) in the hypothalamus and cerebellum of rats exposed to cold. Desmethyldiazepam and diazepam reduce more effectively than chlordiazepoxide the turnover rate of catecholamines in cerebellum of rats exposed to cold and the pentylenetetrazol convulsions. However, diphenylhydantoin, a drug with strong chemical similarity to diazepam can decrease the turnover of catecholamines in cerebellum and other brain areas of rats exposed to cold but it does not antagonize the convulsions elicited by pentylenetetrazol. The action of benzodiazepines

on turnover of NE and DM cannot be related to a direct action on amine metabolism. Results of experiments with diazepam analogue, R0 5 5807, are also reported. 25 references. (Author abstract modified)

164836 Segal, M.; Bloom, F. E. Laboratory of Neuropharmacology, NIMH, St. Elizabeths Hospital, Washington, DC 20032 A projection of the nucleus locus coeruleus to the hippocampus of the rat. (Unpublished paper). Washington, DC, NIMH, 1973, 1 p.

Hippocampal responses to locus coeruleus (LC) responses were characterized in lightly anesthetized rats. Recording of cellular activity from the dorsal hippocampus (HCP) after single shocks produced long latency slowing of spontaneous firing of single cells. Multiple shocks produced long lasting inhibition of spontaneous firing. Responses were blocked during iontophoretic application of a beta adrenergic blocking agent and an adenyl cyclase inhibitor. They were augmented during application of a phosphodiesterase inhibitor and during blocade of reuptake of norepinephrine (NE) with desmethylimipramine. Responses were not affected by a GABA blocking agent and were absent in rats which were depleted by their central NE stores chronically or acutely. It is concluded that there is a direct, but slowly conducting pathway between LC and the HCP, that the pathway utilizes NE as a transmitter and that the release of NE inhibits spontaneous firing of hippocampal pyramidial cells. (Author abstract modified)

164858 Simon, Eric J. New York University Medical Center, New York, NY Effects of morphine and analogues on cell metabolism. Progress report, NIMH Grant, DA-17, 1973. 3 p.

Preliminary results on investigations identifying and characterizing receptors for opiates in the central nervous system of animals and man are reported. Purification of antibodies to morphine and studies of a number of metabolic effects of morphine derivatives are outlined. 5 references.

165411 Velasco-Martin, A.; Lorenzo-Fernandez, P.; Garcia de Jalon, P. D. Department of Pharmacology, School of Medicine, C. U., Madrid-3, Spain Effect of sulpiride on oxygen uptake by rat's brain tissue in vitro. **Experientia (Basel). 29(9):1100-1101, 1973.**

In vitro brain slices from male albino rats were studied to explored the effect of sulpiride in oxygen uptake. In Krebs-Ringer phosphate medium with a high concentration of potassium, the oxygen uptake is increased up to 21.1%. The absence of calcium does not significantly modify the uptake. Sulpiride seems to have a depressor effect only at higher concentrations than those considered to be pharmacologically active. 12 references.

165412 Martinez-Sierra, R.; Lorenzo-Velazquez, B. Department of Pharmacology, Medical School, University of Madrid, Ciudad Universitaria, Madrid 3, Spain Interaction of cocaine and iproniazid on the H3-norepinephrine uptake mechanism on isolated strip ventricle of frog heart. **Experimentia (Basel). 29(9):1106-1107, 1973.**

The ventricles of frog (Rana pipiens) were isolated to study the blockade by cocaine of the 3H-norepinephrine (NE) uptake to iproniazid (IPN). Cocaine greatly blocks the H3-NE uptake thereby disputing the hypothesis of a different ability of blockade by cocaine leading to differences in sensitivity. IPN behaves as a potent blocker of the uptake of H3-NE when under certain temperatures. There is some doubt as to what factors were responsible for the blockade. 12 references.

165634 Erickson, Carlton K. no address Central neurotransmitter effects of ethanol. Final Report, NIMH Grant MH-23239, 1973, 4 p.

A project to gather evidence for an acute effect by ethanol (ETOH) on the function of primarily acetylcholine (ACh), and secondarily norepinephrine (NE) and serotonin (5HT) in the brain is reported. Results show that total brain ACh was significantly raised one half hour following ETOH administration. Total brain ACh did not follow blood ETOH concentrations. None of the following drugs: parenteral atropine, intraventricular hemicholinium, and intraventricular ACh, given during ETOH intoxication, significantly altered the ETOH induced behavioral depression, suggesting that the reported reduction in free ACh during ETOH intoxication may merely reflect decreased neuronal activity, rather than being an important causative factor in ETOH induced central nervous system depression. 3 references.

165680 Buttram, James Morrison. University of Tennessee Medical Units, Memphis, TN Adrenergic receptor roles in epinephrine reversal by chlorpromazine. (Ph.D. dissertation). **Dissertation**

Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-19139 HC$10.00 MF$4.00 152 p.

Experiments on cats designed to define more precisely the role of adrenergic receptor mechanisms in epinephrine antagonism by chlorpromazine and to elucidate chlorpromazine's potentiating action on beta receptor responses are discussed. The data suggest that beta mediated response augmentation after chlorpromazine is due to the inability of the agonist drugs to discriminate precisely between the peripheral vascular alpha and beta receptors. It is also suggested that alpha receptor blockade by chlorpromazine may account for the augmentation of peripheral beta receptor mediated responses. (Journal abstract modified)

165682 Palmer, Gene C.; Sulser, F.; Robison, G. A. University of New Mexico School of Medicine, Albuquerque, NM 87106 Effects of neurohumoral and adrenergic agents on cyclic AMP levels in various areas of the rat brain in vitro. (Unpublished paper). University of New Mexico School of Medicine, Albuquerque, NM, 1973, 27 p.

The effects of neurohumoral and adrenergic agents on cyclic AMP levels in various areas of the rat brain in vitro were investigated. When norepinephrine (NE) was added to slices of various areas of the rat brain, there was a two to five fold increase in the level of adenosine 3'5'-monophosphate (cyclic AMP) within 6 minutes in all areas except the cerebellum. The basal level of cyclic AMP in the cerebellum was higher than in other areas of the rat brain, and the response to NE was smaller. In slices of rat hypothalamus NE, epinephrine, isoproterenol and alpha methyl NE significantly elevated cyclic AMP levels. Results are somewhat difficult to interpret because the precise cellular location of the observed changes are unknown. 26 references.

165790 Palmer, Gene C. Dept. of Pharmacology, University of New Mexico School of Medicine, Albuquerque, NM 87106 Influence of amphetamines, protriptyline and pargyline on the time course of the norepinephrine-induced accumulation of cyclic AMP in the rat brain. **Life Sciences (Oxford). 12(8):345-355, 1973.**

Cyclic 3', 5' adenosine monophosphate (cyclic AMP) was measured at various time periods following addition of norepinephrine (NE) and/or psychotropic drugs to incubated slices of rat hypothalamus and cerebral cortex. When NE was added to the hypothalamus slices, cyclic AMP levels increased to a maximum about 12-24 min. incubation but were sometimes diminished after 60 min. In the cerebral cortex, in the presence of NE, cyclic AMP content sometimes continued to rise up to 60 min. In slices of hypothalamus, d-amphetamine and to a greater extent p-hydroxyamphetamine selectively antagonized the accumulation of cyclic AMP during the earlier stages of the incubation with NE. Protriptyline antagonized the accumulation of cyclic AMP in the presence of NE for up to 60 min. in the hypothalamus and cerebral cortex. Pargyline slightly enhanced the stimulation of cyclic AMP by NE as a function of time as well as elevating basal levels of the cyclic nucleotide. The results suggest alternate adrenergic actions for some psychotropic drugs. 32 references. (Author abstract modified)

165941 Karoum, Farouk; Wyatt, R.; Costa, E. Saint Elizabeth's Hospital, Washington, DC Norepinephrine (NE) turnover in the central nervous system (CNS) -- estimated in the rat from urinary 3-methoxy-4-hydroxyphenylglycol (MHPG) excretion. (Unpublished paper) Washington, D.C., Saint Elizabeth's Hospital, 1973.

A method for measuring norepinephrine (NE) turnover in the central nervous system of rats is described. The method employs estimation of urinary excretion of the metabolite 3-methoxy-4-hydroxyphenylglycol (MHPG).

165995 Ugarte, G.; Pino, M. E.; Pereda, T.; Iturriaga, H. Department of Medicine, University of Chile, Hospital San Borja-Arriaran, Santiago, Chile Increased blood ethanol elimination in rats treated with halothane. **Pharmacology. 9(5):275-280, 1973.**

The effect of chronic halothane inhalation and blood ethanol elimination was studied in the rat. Hepatic alpha-glycerophosphate, oxidase ADH and malic enzyme activities were determined. Malic enzyme activitity was also assayed in adipose tissue. Halothane treated rats showed an increased ethanol elimination. Hepatic and adipose tissue malic enzyme activities were significantly enhanced in halothane treated rats. Mitochondrial alpha-glycerophosphate oxidase activity was also significantly increased in the liver of halothane treated animals while no changes in ADH activity were observed. The enhanced ethanol elimination after halothane treatment, a

substance which inhibits microsomal enzyme, is possibly due to increased NADH reoxidation. Another possibility explaining augmented ethanol metabolism may be an increased incorporation of ethanol into lipids related to the enhancement of malic enzyme activity. 27 references. (Author abstract)

165999 Hartley, R.; Smith, J. A. School of Pharmacy, University of Bradford, Great Horton Road, Bradford BD7 1DP, Yorkshire, England The activation of pineal hydroxyindole-O-methyltransferase The activation of pineal hydroxyindole-O-methyltransferase by psychotomimetic drugs. **Journal of Pharmacy and Pharmacology (London). 25(9):751-752, 1973.**

The activation of a methylating enzyme, hydroxyindole-O-methyltransferasee (HIOMT), by psychotomimetic drugs was studied. Results showed that dimethyltryptamine stimulates bovine pineal HIOMT by almost 30%, while other psychotomimetic compounds produced substantially less stimulation. It is not yet possible to correlate clinical potency of hallucinogenic compounds with their in vitro stimulation of pineal HIOMT; however, should these drugs accelerate the enzyme in vivo, a new mechanism must be considered. Psychotomimetic compounds produce psychoses in normal subjects similar to those observed in schizophrenia. The fact that all the hallucinogenic compounds examined in vitro increase the amounts of melatonin is relevant. It is possible that abnormally methylated catecholamines are produced in schizophrenia and thus affect psychoses by a mechanism similar to that for mescaline. 18 references.

166000 Harris, Jane E.; Baldessarini, Ross J. Psychiatric Research Laboratories, Massachusetts General Hospital and Harvard Medical School, Boston, MA 02114 Amphetamine-induced inhibition of tyrosine hydroxylation in homogenates of rat corpus striatum. **Journal of Pharmacy and Pharmacology (London). 25(9):755-757, 1973.**

The mechanisms underlying the inhibition of catecholamine synthesis uniquely in the corpus striatum but not in other areas of the brain by amphetamine were studied. Tyrosine hydroxylase (TH) activity was measured in subject rats after treatment with (+)-amphetamine SO4. Results suggest that the unique inhibitory effects of in vivo administration of amphetamine on TH activity in striatal synaptosomes may be mediated by decreased neuronal activity in ascending nigro - striatal dopamine neurons. 15 references.

166027 Roffler-Tarlov, Suzanne; Schildkraut, Joseph J.; Draskoczy, Paul R. Department of Neurology, Children's Hospital Medical Center, Boston, MA Effects of acute and chronic administration of desmethylimipramine on the content of norepinephrine and other monoamines in the rat brain. **Biochemical Pharmacology (Oxford). 22(22):2923-2926, 1973.**

The effects of acute and chronic administration of desmethylimipramine (DMI) on the content of norepinephrine, dopamine, and serotonin in rat brain were studied. The content of norepinephrine in various brain regions was examined to see if regional differences occur in the effects of acutely and chronically administered DMI. Results showed that the concentration of norepinephrine in whole rat brain or in whole brain minus corpus striatum was decreased after chronic, but not after acute, administration of DMI. After chronic but not acute administration of DMI, the content of norepinephrine was lowered to about the same extent in all five brain areas examined: pons - medulla, cortex, cerebellum, hypothalamus, and the rest of the brain. The content returned to normal values within 1 week after treatment ceased; the process does not seem to irreversibly damage the noradrenergic neurons. 18 references.

166064 Ellinwood, Everett H., Jr.; Sudilovsky, Abraham; Grabowy, Richard. Behavioral Neuropharmacology Section, Department of Psychiatry, Duke University Medical Center, Durham, NC Olfactory forebrain seizures induced by methamphetamine and disulfiram. **Biological Psychiatry. 7(2):89-99, 1973.**

A combination of disulfiram and methamphetamine was administered to cats over a period of days in doses sufficient to induce generalized seizures and the original anatomical focus of discharge and process of seizure development were studied. High voltage olfactory bulb spindle activity appeared to induce epileptic discharges which emanated from the anterior olfactory system (olfactory bulb and tubercle, accumbens, and amygdala). Computer analysis showed that the spindle activity which preceded the discharges formed a recognizable pattern with the discharges. The substantia nigra and interpeduncular nucleus were involved in the spread of seizure discharges leading to generalized seizures. Norepinephrine was implicated as an inhibitor of seizure activity; dopamine may potentiate seizure activity. The importance of electrographic events in relation to the mechanisms underlying

psychomotor epilepsy and amphetamine psychosis is stressed. 27 references. (Author abstract)

166157 Trulson, Michael; Randall, Walter. University of Iowa, Iowa City, IA 52240 5-hydroxytryptamine metabolism, superior colliculus, and grooming behavior in cats with pontile lesions. **Journal of Comparative & Physiological Psychology. 85(1):1-10, 1973.**

Data which implicate a 5-hydroxytryptamine (5-HT) fiber system in the superior colliculus in the mediation of an abnormal grooming system that wakes and wanes during the year in cats with pontile lesions is discussed. Manipulations of 5-HT metabolism were made systemically, as well as locally in the superior colliculus, in normal cats and in cats with pontile lesions. 5-hydroxytryptophan administration abolished the abnormal behavior, and p-chlorophenylalanine administration induced the abnormal behavior in cats with pontile lesions; but p-chlorphenylalanine administration to normal cats did not induce the abnormal behavior. The results indicate that the pontile lesion produces at least 2 critical deficits that induce the abnormal behavior. Previous data indicated that another critical deficit is in glucocorticoid function. 30 references. (Author abstract)

166387 Officer, J. E. Department of Pathology, University of California Medical School, Los Angeles, CA The effect of gerovital H3 on the growth rate of aged mouse embryo fibroblasts and on the pathogenesis induced by a RNA C-type virus. **Gerontologist. 13(3, Part II):62, 1973.**

The growth rate of Swiss mouse embryo fibroblasts (MEF) when cultured in a low serum (2%) medium was studied, stressing the effects of Gerovital H3 (GH3) on the growth rate of fibroblasts of aged mouse embryos and on the pathogenesis induced by RNA C-type virus. Growth remained constant for 6 passages, then declined and ceased after 9-10 generations. Infecting secondary MEF cultures with a wild mouse RNA C-type virus immediately impaired growth rate; by the fifth transfer a morphologically altered cell with an infinite growth capacity appeared. GH3 at a final concentration of 0.5% significantly stimulated cell growth when added to aged cells and increased the number of cell passages. Cell multiplication was slowed down when GH3 was added to young cells, while the effect was reversed by increasing the CA++ concentration in the medium. When GH3 was continuously maintained in the growth medium of virus infected cultures, a delaying in time of appearance of the viral induced altered cell type was noted. Data suggest that GH3 can significantly affect the growth rate of both aging and young cells, and the pathogenesis induced by a murine C-type virus in MEF cell cultures. (Journal abstract modified)

166388 MacFarlane, M. David. School of Pharmacy, University of Southern California, Los Angeles, CA 90007 The nature of the inhibition of monoamine oxidase produced by Gerovital H3. **Gerontologist. 13(3, Part II):63, 1973.**

Using rat brain homogenate as a source of monoamine oxidase (MAO) and kynuramine as a substrate, studies were performed to determine if Gerovital H3, (GH3) a recently reported inhibitor of MAO, is a reversible or irreversible inhibitor of MAO and if the inhibition is competitive or noncompetitive. Results indicated that GH3 is a reversible, competitive inhibitor of MAO. Therefore, as monoamines begin to rise to excessive levels due to MAO inhibition, GHS will be competitively displaced from the active site of the enzyme, allowing the excess monoamines to be metabolized and preventing a toxic episode. This finding may help to explain the low incidence of side-effects that have been associated with use of GH3. (Journal abstract modified)

166389 Wagner, B. M. Pathology Department, Beekman Downtown Hospital, New York, NY Possible site of action of Gerovital H3 in the central nervous system. **Gerontologist. 13(3, Part II):63, 1973.**

In a study of the possible site of action of Gerovital H3 (GH3) in the central nervous system, rats received daily I.M. GH3 doses of 15, 30, and 60mg/kg for 30, 60, and 90 days. At time of sacrifice, brains of selected animals were prepared for light microscopy, histochemistry, and electromicroscopy (EM). Samples of spinal cord were prepared in a similar manner. At all dose levels, no alterations in cyto-architecture were observed. Examination of cerebral cortex, thalamus - hypothalamus, and midbrain showed no cellular abnormalities. All EM observations revealed normal ultrastructure. At concentrations of 60mg/kg for 90 days, GH3 might be expected to induce adaptive metabolic responses in cellular organelles. Since such changes were not observed, it suggests that GH3 may act 1) without structural changes in the CNS, 2) at the level of the cell membrane, or 3) at a distant side. Prelimi-

nary studies of the extracellular ground substance in the brain as a site of action are presented. (Journal abstract modified)

166530 Rech, Richard H. Department of Pharmacology, Michigan State University, East Lansing, MI 48823 Brain amine release during suppressed behavior. Final Report, NIMH Grant MH-22093, 1973. 36 p.

The effects of conditioned and unconditioned stimuli on the disposition of brain catecholamines were studied in rats. Experiments support reports that perfusion of the cerebral lateral ventricales of rats with push pull cannulas provides useful information concerning the in vivo release and/or reuptake processes of catecholaminergic nerve terminals. Using conscious and freely moving rats implanted intraventricularly with push pull cannulas, the appearance of radioactivity from 14C norepinephrine was detected following the presentation of electric footshock or a previously neutral visual stimulus paired with shock. Evidence indicated that the stimulus elicited efflux originated from catecholamine containing nerve terminals: the apparent release could be blocked or attenuated by prior administration of 6-hydroxydopamine administered intraventricularly, and the stress induced efflux resembled the neurochemical response produced by d-amphetamine, which has prominent effects on brain catecholamines. 11 references. (Author abstract modified)

166689 Fernandes, Mario; Warning, Norbert; Christ, Wolfram; Hill, Regina. Institut fur Neuropsychopharmakologie der Freien Universitat Berlin, 1000 Berlin 19, Ulmenallee 30, Germany Interactions of several cannabinoids with the hepatic drug metabolizing system. **Biochemical Pharmacology (Oxford). 22(23):2981-2987, 1973.**

Spectral interactions of various cannabinoids with rat liver microsomes and their effects on several microsomal enzymes were studied. Delta9-tetrahydrocannabinol (delta9-THC), delta8-tetrahydrocannabinol (delta8-THC), cannabinol (CBN), and cannabidiol (CBD) produced type I spectral changes. Aminopyrine demethylation was competitively inhibited by delta9-THC, delta8-THC, CBN and CBD, by the latter only in concentrations below 10 microles. Delta8-THC, however, did not inhibit this reaction, and inhibition by CBD was of mixed type at all concentrations. There was no effect of cannabinoids on aniline hydroxylation. The inhibitory potencies of cannabis constituents on drug metabolism in vitro parallel the in vivo results obtained by interaction studies with hexobarbitone. It is concluded that CBD, which is by far more potent in inhibiting drug metabolism than other cannabinoids, contributes significantly to the effects of crude cannabis preparations at least in rodents. 20 references. (Author abstract)

166690 Frey, Hans-Hasso; Schulz, Rudiger. Department of Pharmacology and Toxicology, School of Veterinary Medicine, Free University, Berlin-West, Germany On the central mediation of anorexigenic drug effects. **Biochemical Pharmacology (Oxford). 22(23):3041-3049, 1973.**

The anorexigenic effects of d-amphetamine and of d-p-chloroamphetamine were compared in male rats. The p-chloro compound proved to be 1.5to 2 times more active than d-amphetamine. The suppression of food' intake provoked by an ED95 of d-amphetamine was antagonized by the following treatments: p-chlorophenylalanine, cyproheptadine, alpha-methyltryosine, disulfiram, phentolamine, and haloperidol. All these treatments either reduced the hypothalamic turnover of noradrenaline or blocked the receptors of this amine, which therefore is considered as the mediator of the anorexigenic effect of amphetamine. The effect of an ED95 of d-p-chloramphetamine was antagonized by p-chlorophenylalanine, alpha-methyltyrosine and disulfiram. Cyproheptadine had an effect only with the lowest dose used, and the antagonistic effects of phentolamine and especially of haloperidol were much weaker than in the case of amphetamine. These antagonistic effects and the alterations in levels and turnover of hypothalamic 5-hydroxytryptamine (5-HT), noradrenaline and dopamine suggest a participation of catecholamines and 5-HT in the mediation of the anorexigenic effect of p-chloroamphetamine. 35 references. (Author abstract modified)

166691 Marcucci, Franca; Mussini, Emilio; Airoldi, Luisa; Guaitani, Amalia; Garattini, Silvio. Istituto di Ricerche Farmacologiche 'Mario Negri', Via Eritrea, 62-20157 Milano, Italy Diazepam metabolism and anticonvulsant activity in newborn animals. **Biochemical Pharmacology (Oxford). 22(23):3051-3059, 1973.**

Diazepam metabolism was studied in vivo and in vitro in newborn and adult rats and guinea pigs. Both newborn rats and guinea pigs are more sensitive to the antimetrazol action of diazepam than

the adult animals. The difference in activity was about fifteen times for rats but only twice for guinea pigs. This difference may be explained partly by the different levels of diazepam and its metabolites in the brain of newborn and adult animals. The total benzodiazepines present in the brain of newborn rats and guinea pigs were always higher than in adult animals. Studies carried out with liver microsomal enzymes indicate that the metabolism in newborn animals is considerably reduced in respect to adult rats and guinea pigs. 21 references. (Author abstract)

166693 Herrera, Emiol Emilio; Pascual, Angel. Catedra de Fisiologia General, Facultad de Ciencias, Universidad de Barcelona, Barcelona-7, Spain Effect of an amphetamine derivative in rat adipose tissue lipolysis and glycerol utilization in vitro. **Biochemical Pharmacology (Oxford). 22(23):3131-3133, 1973.**

The effect of an amphetamine derivative, the chlorhydrate of ((methyl-1 phenyl-2) ethylamine)-3 propionitrile (CMPEP) on adipose tissue lipolysis and glycerol utilization was studied in the rat. The amount of glycerol formed by the tissues during incubation was not affected by the presence of CMPEP, however, higher dose of the drug 0.5mg/ml) resulted in a significant increase in the production of glycerol by the tissue. Subsequently higher doses of the drug (5.0mg/ml) produced an inhibition in the production and release of glycerol. The results indicate that doses of CMPEP up to 0.5mg/ml do not effect the net oxidation of glycerol to C02. It is concluded that CMPEP has an in vitro effect on adipose tissue which is dose dependent and biphasic. It is concluded that adipose tissue reutilizes glycerol for the synthesis of glyceride glycerol and for its complete oxidation to C02 and that glycerokinase activity is higher than previously thought. 9 references.

166694 Bhargava, Hemendra N.; Afifi, Abdel-Halim; Way, E. Leong. Department of Pharmacology, School of Medicine, University of California, San Francisco, CA 94143 Effect of chemical sympathectomy on morphine antinociception and tolerance development in the rat. **Biochemical Pharmacology (Oxford). 22(21)2769-2772, 1973.**

The effect of chemical sympathectomy on morphine antinociception and tolerance development was studied in the rat. 6-Hydroxydopamine (6-0HDA) antagonized the acute analgesic effects of morphine in both nontolerant and tolerant rats to about the same degree. Since the 6-OHDA was injected prior to rendering the animal tolerant to morphine by pellet implantation, it is suggested that 6-OHDA did not affect materially the development of tolerance to morphine. The data indicates that aggressive behavior observed during chronic morphine administration after 6-OHDA treatment reflects a morphine withdrawal response since the irritability only became evident after the removal of the morphine pellet at a time when the animals were maximally dependent. 16 references.

166695 Maj, Jerzy; Baran, Leokadia; Grabowska, Maria; Sowinska, Helena. Institute of Pharmacology, Polish Academy of Sciences, Cracow, Poland Effect of clonidine on the 5-hydroxytryptamine and 5-hydroxyindoleacetic acid brain levels. **Biochemical Pharmacology (Oxford). 22(21):2679-2683, 1973.**

The effects of clonidine on the brain levels of 5-hydroxytryptamine (5-HT) and 5-hydroxyindoleacetic acid (5-HIAA) in rats and mice were studied. Clonidine did not change the levels of 5-HT and 5-HIAA in the whole brains of either animal species but the 5-HT concentrations were elevated in rat brain pons + medulla oblongata. Clonidine antagonized the increase in the brain 5-HIAA levels induced by apomorphine in rats and mice. The decrease in the 5-HT level and the increase in the 5-HIAA level observed in rats after L-dopa (given with peripheral decarboxylase inhibitor RO-4-4602) were counteracted by clonidine. 19 references. (Author abstract)

166696 Azzaro, Albert J.; Gutrecht, Jose A.; Smith, David J. Neuropharmacology Research Laboratory, Department of Neurology, West Virginia University Medical Center, Morgantown, WV 26506 Effect of diphenylhydantoin on the uptake and catabolism of L-(3H)norepinephrine in vitro in rat cerebral cortex tissue. **Biochemical Pharmacology (Oxford). 22(21):2719-2729, 1973.**

The effect of diphenylhydantoin on the accumulation of (3H)norepinephrine in vitro was examined in brain slices prepared from rat cerebral cortex. High concentrations of diphenylhydantoin caused a significant reduction in the 5 min accumulation of (3H)norepinephrine. Smaller doses of diphenylhydantoin facilitated the 20 min accumulation of (3H)norepinephrine. This facilitative action of diphenylhydantoin was associated with a reduction in oxidative catabolism of

(3H)norepinephrine and abolished by the 2 hr pretreatment of rats with 100mg/kg of nialamide. The inhibitory action of diphenylhydantoin on the oxidative catabolism of (3H)norepinephrine was observed in both whole and lyzed crude synaptosomal preparations. When diphenylhydantoin and pargyline were compared, it was found that pargyline was 37 times more effective than diphenylhydantoin in inhibiting the oxidative deamination of (3H)norepinephrine. The results suggest that diphenylhydantoin alters norepinephrine metabolism in cerebral cortex slices by an inhibitory action on monoamine oxidase activity and the neuronal uptake system. 27 references. (Author abstract)

166697 Hitzemann, Robert J.; Loh, Horace H. Langley Porter Neuropsychiatric Institute, University of California, San Francisco, CA 94122 Effect of d-amphetamine on the turnover, synthesis and metabolism of brain phosphatidylcholine. **Biochemical Pharmacology (Oxford). 22(21):2731-2741, 1973.**

The effect of acute and chronic d-amphetamine treatment on the synthesis, metabolism and turnover of 14C-choline labeled phosphatidylcholine was measured in discrete regions of the rat brain. Chronic d-amphetamine treatment was found to inhibit the turnover of 14C-phosphatidylcholine in the cortex, cerebellum, hypothalamus, diencephalon, brain stem and caudate nucleus. Acute d-amphetamine treatment was found to inhibit the incorporation of 14C-choline into phosphatidylcholine only in the cortex and cerebellum. Studies in vitro suggest that d-amphetamine inhibits cortical phosphatidylcholine synthesis at the cytidine diphosphorylcholine diglyceride transferase step. d-Amphetamine was not found to alter the base exchange reaction or phospholipase C activity. 16 references. (Author abstract)

166698 Haubrich, Dean R.; Blake, Donald E. Department of Pharmacology and Toxicology, Purdue University, Lafayette, IN Modification of serotonin metabolism in rat brain after acute or chronic administration of morphine. **Biochemical Pharmacology (Oxford). 22(21):2753-2759, 1973.**

The modification of serotonin metabolism in rat brain after acute or chronic administration of morphine is reported. The steady state concentration of 5-hydroxyindoleacetic acid (5-HIAA) was elevated in rat brain for at least 4 hr after administration of a single dose of morphine sulfate and for more than 40 hr after subcutaneous implantation of pellets of morphine alkaloid. The concentration of 5-HIAA returned to normal 3 days after pellet implantation at a rate that paralleled the development of tolerance to the analgesic and other overt actions of morphine. Morphine did not modify the steady state concentration of serotonin under any of the treatment conditions. The turnover of brain serotonin was increased significantly during the 90 min period following a single injection of morphine sulfate. An increase in turnover of serotonin was evident in brains of tolerant rats 72 hr after pellet implantation. These results indicate that changes in brain serotonin metabolism are associated with both the acute effects of morphine and with morphine tolerance. 34 references. (Author abstract modified)

166699 Erwin, V. Gene; Deitrich, Richard A. School of Pharmacy, University of Colorado, Boulder, CO 80302 Inhibition of bovine brain aldehyde reductase by anticonvulsant compounds in vitro. **Biochemical Pharmacology (Oxford). 22(20):2615-2624, 1973.**

The effects of various structurally similar anticonvulsant agents on brain NADPH linked aldehyde reductase activity were examined. The catalytic activity of partially purified NADPH linked aldehyde reductase from bovine brain was markedly inhibited in vitro by anticonvulsant compounds. In general, the ability of these drugs to inhibit aldehyde reductase in vitro paralleled their anticonvulsant activity. Inhibition by various barbiturates, hydantoins or succinimides was noncompetitive with either NADPH or aldehyde as the variable substrate, whereas the 2,4-oxazolidinediones produced a mixed type of inhibition. Inhibition by all ionizable compounds was found to vary with pH of the reaction mixture, while the nonionizable substances, paradione, trimethadione, methsuximide, 3-methyl-5-ethyl-5-phenylhydantoin, were not inhibitory. The possibility that inhibition of brain NADPH linked aldehyde reductase by these agents related to their anticonvulsant actions is discussed. 23 references. (Author abstract modified)

166700 Crifo, Carlo; Bozzi, Argante; Mondovi, Bruno; Strom, Roberto. Institute of Biological Chemistry, University of Rome, Rome, Italy Inhibition of uridine incorporation into RNA in mammalian cells by agents affecting the properties of the cell membrane: chlorpromazine,

dipyridamole and phenylethanol. **Biochemical Pharmacology (Oxford). 2(20):2511-2519, 1973.**

The effects of chlorpromazine, dipyridamole and 2-phenylethanol on the permeability of the cell membrane and on the metabolism of exogenous uridine by Ehrlich ascites cells were compared in Swiss mice, by following the rate of fluorescein efflux from the cells, the incorporation of the labelled nucleoside into ribonucleic acid and by determining the distribution of the label between the various metabolites. The main effect of chlorpromazine was on the passive permeability of the cell membrane, decreasing it at low concentration and increasing it at higher ones; the latter effect was enhanced by irradiation with visible light. Dipyridamole did not modify the passive permeability, but blocked the entry of the nucleoside into the cell. Phenylethanol inhibited the entry of the nucleoside and increased the cell permeability. 21 references. (Author abstract)

166732 Bapna, J. S.; Dandiya, P. C.; Kulkarni, S. K. Department of Pharmacology, S. M. S. Medical College, Jaipur, India Dissociation of excitatory and hyperpyrexic effects of LSD in rats treated with alpha-methyltyrosine. **Japanese Journal of Pharmacology (Kyoto). 23(5):735-737, 1973.**

The influence of alpha-methyltyrosine (AMT) pretreatment on the effects of lysergic acid diethylamide (LSD) in the rat was studied. LSD caused a significant enhancement in the ambulatory activity with a subsequent marginal reduction in the rearing activity. It also caused a marked hyperpyrexia. AMT pretreatment antagonized the increase in ambulatory response but did not modify the hyperpyrexic response. 3 references.

166789 Kelliher, Gerald J.; Roberts, Jay. Department of Pharmacology, The Medical College of Pennsylvania, Philadelphia, PA A comparison of the effects of sotalol and of the isomers of practolol on adrenergic nervous activity. **Life Sciences (Oxford). 13(9):1231-1243, 1973.**

The effects of sotalol and the d(+) and 1(-) isomers of practolol on spontaneous activity recorded from postganglionic cardioaccelerator fibers in cats anesthetized with alpha-chloralose were studied. The 1(-) isomer of practolol caused a dose related depression of adrenergic nervous activity while d(+)-practolol had no effect. Sotalol had no influence on nervous discharge. The results suggest that 1(-) practolol depresses adrenergic nervous activity and that this effect may be important in the antiarrhythmic action of this agent. 19 references. (Author abstract)

166902 Rajan, K. S. IIT Research Institute, 10 West 35th Street, Chicago, IL 60616 Metal chelation of chlorpromazines. Final Report, NIMH Grant MH-22208, 1973. 32 p.

The metal chelation characteristics of 7-hydroxy- and 7,8-dihydroxychlorpromazine and unsubstituted chlorpromazine with Mg(II), Ca(II), and Cu(II) ions in the presence and absence of adenosinetriphosphate (ATP) were investigated. The possible stabilization of these phenothiazines through metal chelation was also studied. A critical consideration of the pharmacological activities and metabolism of the phenothiazine group of tranquilizers indicates that knowledge of their metal chelation characteristics would be valuable for a proper understanding of: (1) the mechanism of their in vivo interactions with the catecholamines and (2) the stabilization of the hydroxy isomers against the formation of toxic metabolites. 16 references. (Author abstract)

166984 Gram, Lars F.; Christiansen, Johs,; Overo, Kerstin Fredericson. Psykokemisk institut, Rigshospitalet, Blegdamsvej 9, 2100 Kobenhavn O, Denmark /Pharmacokinetic interaction between neuroleptics and antidepressants: effect on organ distribution and metabolic pattern./ Farmakokinetisk interaktion mellem neuroleptica og antidepressiva; virkning pa organfordeling og metabolitmonster. **Nordisk Psykiatrisk Tidsskrift (Odense, Denmark). 26(6):364, 1972.**

Animal experiments showing that pretreatment with perphenazine (7mg/kg for 10 days) inhibits metabolism of 14C-nortriptyline to a marked degree are reported. A double concentration of untransformed 14C-nortriptyline was found in the brains of rats, as compared to a control group, and similar, but less pronounced, changes were found in the heart and erythrocytes. Further clinical tests examined changes in the metabolic pattern of 14C imipramine in the urine during treatment with neuroleptics and found a lower separation of glucuronide bound metabolites and other polar, nonextracetable metabolites. The direct extractable fraction did not change with respect to total amount, but there was a pronounced change in the interrelation of metabolites. Separation of imipramine and desmethyl imipramine increased, 2-OH metabolites separation was heavily reduced, and separation of imipramine-N-oxide temporarily

increased. It is suggested that the interaction effects inhibition of C-oxidation and results in a subsequent shift to increased N-oxidation.

166987 Asberg, Marie. Psykiatriska kliniken, Karolinska institutet, 104 01 Stockholm 60, Sweden /Drug interaction with psychopharmaceuticals./ Lakemedelsinteraktion med psykofarmaka. **Nordisk Psykiatrisk Tidsskrift (Odense, Denmark). 26(6):368-373, 1972.**

The metabolic interaction of drugs and psychopharmaceuticals is described with respect to metabolism inhilition (increased concentration in plasma and tissue). Examples are given to emphasize the relationship between plasma concentration and the effect of tricyclic antidepressants. The therapeutic value is pointed out. Dangers and therapeutic value in metabolic inhibition are outlined and interaction with exogenously administered amines and with other drugs with respect to transport to, and release from, adrenergic neurons is described. The clinical significance of the interaction with various psychopharmaceuticals is emphasized, and controlled studies are recommended. 12 references.

167018 Paalzow, Lennart; Arbin, Astrid. Apotekens Centrallaboratorium, Box 3045, S-171 03 Solna, Sweden Serum and brain concentrations of pentazocine in relation to analgesic activity in mice. **Journal of Pharmacy and Pharmacology. 24(7):552-556, 1972.**

Serum and brain concentrations of pentazocine and its metabolite, the transalcohol, have been studied in mice and related to analgesic activity. The concentrations were determined fluorometrically after extraction and isolation of the compounds by partition chromatography as ion pairs. The acute intravenous toxicity (LD50) of the drug was also determined. The analgesic activity was found to reside in the unchanged pentazocine since, after the initial distribution stage, the drug elicits a higher degree of analgesia in animals showing higher brain concentrations of pentazocine. Furthermore, animals which did not show an analgesic response had higher serum concentrations of the trans-alcohol in comparison with animals showing analgesic activity, indicating a relation between analgesia and the degree of metabolism. However, the relation between the analgesic response and the brain concentration during the first 20 min after intravenous injection of the drug was poor. 15 references. (Author abstract)

167043 Nasello, A. G.; Depiante, R.; Tannhauser, M.; Izquierdo, I. Departmento de Farmacologia, Facultad de Ciencias Quimicas, Universidad Nacional de Cordaba, Estafeta 32, Cordoba, Argentina Effect of morphine on the RNA and ATP concentration of brain structures of the rat. **Pharmacology (Switzerland). 10(1):56-59, 1973.**

The effect of morphine on rat cortical, hippocampal, thalamic, and hypothalamic RNA and ATP concentration was studied. After a single dose, there was an increase of RNA in the cortex and thalamus, and a decrease of ATP levels in both structures. When the drug was given chronically, only a fall of thalamic RNA and an increase of thalamic ATP were observed relative to saline treated controls. Rats which received the chronic saline treatment, however, had higher hippocampal and thalamic RNA levels and a lower thalamic ATP concentration than those which received a single saline injection. 11 references. (Author abstract)

167085 Schrammowa, Halina; Rybakowski, Janusz. Klinika Psychiatryczna, Szpitalna 27/33, Poznan, Poland /New investigations into biogenic amines (cerebral or cellular localization, influence of various chemical factors)./ Nowe badania nad aminami biogennymi (lokalizacja mozgowa, komorkowa, wplyw roznych czynnikow chemicznych). **Psychiatria Polska (Warszawa). 6(1):73-79, 1972.**

The effects of various chemicals on cerebral activity and their cellular localization were studied. The presence of noradrenalin, serotonin and various amines in particular parts of rat brain is described. Activity of dopamine, amphetamine, imipramine and ephedrine in the brain is also reviewed. 80 references.

04 MECHANISM OF ACTION: BEHAVIORAL

150151 Squire, Larry R.; Smith, Gary A.; Barondes, Samuel H. Dept. of Psychiatry, University of California at San Diego, La Jolla, CA 92037 Cycloheximide affects memory within minutes after the onset of training. **Nature (London). 242(5394):201-202, 1973.**

A training procedure associated with a cycloheximide sensitive component of memory storage is described. Mice were trained to avoid shock in an automated discrimination training apparatus (the Deutsch carousel). Mice hybridized

from Balb/c females and C3H males were injected with 120mg/kg cycloheximide or saline s.c. Determination of incorporation of 14C-leucine into cerebral protein indicated that more than 95% of cerebral protein synthesis was inhibited 10 to 40 min after injection. When mice were trained for 69 trials beginning 30 min after injection with cycloheximide or saline, their learning curves were not distinguishable for the first 15 to 25 trials; beyond that, the curves diverge and thereafter the cycloheximide group did not improve as rapidly as the saline group. When training began 10 min after injection, a deficit appeared and divergence in learning curves appeared as before, after 15 to 25 trials. The results indicate that within minutes after the beginning of training, improvement in performance may be antagonized by cycloheximide. 10 references.

150264 Bisbee, Delmar S. P.; Cahoon, D. D. Auburn Univ., Auburn, AL 36830 The effects of induced nausea upon shock-elicited aggression. **Bulletin of the Psychonomic Society. 1(1A):19-21, 1973.**

The effects of lithium chloride, a nausea inducing drug, on shock elicited aggression were studied in 19 male Sprague-Dawley albino rats. Of the five groups of subjects, one received lithium chloride only, one shock only, and the remaining three groups received different levels of the injected drug plus shock. Neither simple restraint nor the drug without shock were sufficient to elicit biting responses. Results indicated that small amounts of the nausea inducing drug increased aggressive responding, while larger amounts inhibited aggression. 15 references. (Author abstract modified)

150292 DiMascio, Alberto. Dept. of Mental Health, Tufts Univ. School of Medicine, Boston, MA 02124 The effects of benzodiazepines on aggression: reduced or increased? **Psychopharmacologia (Berlin). 30(2):95-102, 1973.**

The effects of various benzodiazepines on animal models of aggression are presented, and the implications for predicting responses to these drugs in humans discussed. The effects of drugs on aggressive behavior suggest the significance of four factors in determining the results obtained: the test models employed; the species examined; the drug dose administered; and acute versus chronic administration. Depending on these varying factors, opposite findings regarding the alteration of aggressive behavior can be obtained. Concerning the aggression altering properties of the various benzodiazepines, diazepam, chlordiazepoxide, and nitrazepam produce quantitatively different results; the effects of oxazepam have been found to be more than quantitatively different from those of the other benzodiazepines. Studies on the effects of these drugs on aggressive behavior in humans have tended to be based more on clinical anecdotes than on systematic evaluations. The data reveal contrasting findings regarding the effects of the benzodiazepines on hostile aggressive behavior among humans. More extensive and sophisticated research with humans is recommended in order to make accurate predictions regarding the effects these drugs will have on human patients. 39 references.

150296 Modigh, K. Dept. of Pharmacology, Univ. of Goteborg, Goteborg, Sweden Effects of L-tryptophan on motor activity in mice. **Psychopharmacologia (Berlin). 30(2):123-134, 1973.**

The effects of L-tryptophan (50 to 800mg/kg, i.p.)on motor activity in male albino mice (N.M.R.I. strain) were studied. L-tryptophan, 800mg/kg, caused a reduction in motor activity, while lower doses had no significant effect. The role of different metabolites of L-tryptophan in behavioral depression was tested by pretreating groups of animals with inhibitors of tryptophan hydroxylase (p-chlorophenylalanine), peripheral aromatic amino acid decarboxylase (DC) (MK-486), peripheral and central DC (NSD-1015), or tryptophan pyrrolase (allopurinol). None of these pretreatments antagonized the L-tryptophan induced depression of motor activity. Pretreatment with MK-486 or NSD-1015 potentiated the depression. Pretreatment with allopurinol potentiated as well as prolonged the depressive effect. Pretreatment with chlorimipramine had no significant effect on the L-tryptophan induced depression. The elevations of brain tryptophan and 5-hydroxytryptamine (5-HT) following the highest dose of L-tryptophan were prolonged by pretreatment with allopurinol. The L-tryptophan induced increases in the brain concentrations of 5-HT and 5-hydroxyindoleacetic acid were more pronounced after pretreatment with allopurinol. It is suggested that the L-tryptophan induced reduction of motor activity in mice is mediated via the amino acid itself and not via its metabolites. 47 references. (Author abstract)

150298 Vogel, W. H.; Evans, B. D.; Bonnem, E. M.; Fischer, J. F.; McLaughlin, J. L. Dept. of Pharmacology, Thomas Jefferson Univ., Jefferson

Medical College, Philadelphia, PA Macromerine, normacromerine and bisnormacromerine: non-psychoactive methylated derivatives of norepinephrine. **Psychopharmacologia (Berlin). 30(2):145-151, 1973.**

The effects of three O and/or N methylated derivatives of norepinephrine (macromerine, normacromerine, and bisnormacromerine) on a conditioned avoidance response (CAR) were determined, as was the physiological disposition of these compounds in the brain, liver, and plasma. None of the compounds produced an effect on the performance of the CAR by adult male Wistar or Fisher rats following i.p. injections of up to 100mg/kg of the corresponding hydrochlorides. The compounds were found to be rapidly absorbed from the peritoneal cavity, showed a half life of 10 to 60 minutes in the plasma and liver, and remained more or less unchanged in the brain during the first hour. The brain levels were found to vary between 5 and 30microg/g. Since these brain levels are higher than those found for hallucinogenic compounds which do interfere with the CAR, it is concluded that these norepinephrine derivatives are not or are less psychoactive than other known hallucinogenic substances. 15 references. (Author abstract modified)

150300 Wauquier, A.; Niemegeers, C. J. E. Dept. of Pharmacology, Janssen Pharmaceutica, Research Lab., B-2340 Beerse, Belgium Intracranial self-stimulation in rats as a function of various stimulus parameters. III. Influence of apomorphine on medial forebrain bundle stimulation with monopolar electrodes. **Psychopharmacologia (Berlin). 30(2):163-172, 1973.**

The effects of different s.c. doses (0.8, 0.16, 0.31, 0.63, and 1.25mg/kg) of apomorphine on self-stimulation in male Wistar rats with monopolar nichrome electrodes implanted in the medial forebrain bundle at the level of the lateral hypothalamus were studied. Apomorphine was found to produce a dose related response stimulation and a dose related response depression. The greatest stimulation was obtained with 0.63mg/kg, and the greatest depression with 1.25mg/kg. The response stimulation with apomorphine was inversely related to the control response rate, and directly related to the control response rate of the individual rats. The response inhibition with apomorphine was not related to the control response rate but was more pronounced during the first 0.5hour of the session. It is postulated that: increased self-stimulation with apomorphine could be the result of an increased motor response output; decreased self-stimulation with apomorphine could be due to a nonadaptive behavior as a result of nonphysiological overexcitation with the interruption of integrated behavior; and a complex behavioral pattern like intracranial self-stimulation depends on different interacting systems, mediated by different transmitters. 40 references. (Author abstract modified)

150301 Goldberg, M. E.; Hefner, M. A.; Robichaud, R. C.; Dubinsky, B. Dept. of Pharmacodynamics, Warner-Lambert Research Inst., Morris Plains, NJ Effects of delta9-tetrahydrocannabinol (THC) and chlordiazepoxide (CDP) on state-dependent learning: evidence for asymmetrical dissociation. **Psychopharmacologia (Berlin). 30(2):173-184, 1973.**

Delta9-tetrahydrocannabinol (THC) and chlordiazepoxide (CDP) were studied for their effects on the acquisition and performance of an active avoidance response, state dependent learning, and reciprocal substitution in male albino CF-1 mice. Over a wide dose range, CDP had no effect, while THC had a biphasic effect (depression at low doses and facilitation at high doses) on avoidance acquisition. Both agents elicited evidence for state dependent learning; mice trained under drugged conditions failed to transfer learning to the nondrugged state. In contrast, performance decrements occurred only after high doses (40mg/kg) of each drug were given to avoidance trained mice. Administration of CDP facilitated avoidance performance in drug naive mice after doses of 1.25mg/kg and above. THC failed to prevent learning deficits in CDP trained subjects. In contrast, CDP prevented avoidance deficits after doses of 5mg/kg and above in THC trained subjects. These results suggest that an asymmetrical dissociation exists between THC and CDP or between either agent and saline. 25 references. (Author abstract)

150302 Sofia, R. Duane; Knobloch, Linda C. Dept. of Pharmacology, Wallace Labs., Cranbury, NJ 08512 The interaction of delta9-tetrahydrocannabinol pretreatment with various sedative-hypnotic drugs. **Psychopharmacologia (Berlin) 30(2):185-194, 1973.**

The effects of delta9-tetrahydrocannabinol (THC) in the onset and duration of the loss of the righting reflex induced by several widely used sedative - hypnotic drugs were studied following acute pretreatment in 968 male CD-1 albino mice.

Pretreatment with 20mg/kg of the THC produced a significant increase in the duration of action and number of mice exhibiting loss of the righting reflex after the administration of several doses of nine different sedative - hypnotic drugs. Pretreatment with various doses of THC (0.625 to 40mg/kg) caused a significant reduction in the onset to and duration of the sleeping time of most of the sedative - hypnotic drugs tested. Careful statistical examination of all parameters measured revealed a rank order of sensitivity to the depressant actions of THC as follows (in order of decreasing sensitivity): ethchlorvynol, meprobamate, hexobarbital, ethinamate, glutethimide, chloral hydrate, ethanol, methaqualone, and paraldehyde. 20 references. (Author abstract modified)

150312 Andry, Diane K.; Luttges, Marvin W. Depts. of Psychology and Aerospace Engr. Sci., Univ. of Colorado, Boulder, CO 80302 Memory traces: experimental separation by cycloheximide and electroconvulsive shock. **Science. 178(4060):518-520, 1972.**

In an investigation of the processes supporting memory storage, a heterogeneous strain of mice given cycloheximide or saline were trained with a single trial. Electroconvulsive shock (ECS) was administered to both groups at various times after training. Cycloheximide led to memory that decayed with time. Cycloheximide plus ECS produced complete amnesia at times when neither treatment alone produced amnesia. Evidence suggests only two processes supporting memory storage. The long-term process appears to depend on protein synthesis, while the short-term process does not. Complete amnesia resulting from disruptive treatments of both long-term and short-term memory processes combined is not attributable to retrieval deficits but to deficits in actual memory storage processes. The cerebral protein synthesis inhibition produced by ECS appears to be unrelated to amnesic effects produced by ECS. 16 references. (Journal abstract modified)

150317 Jones, B. E.; Prada, J. A. NIMH, Addiction Research Center, P. O. Box 2000, Lexington, KY 40507 Relapse to morphine use in dog. **Psychopharmacologia (Berlin). 30(1):1-12, 1973.**

Intravenous self-administration of morphine by 22 mongrel beagle dogs was studied before and during dependence on morphine, and after 1 to 6 months of enforced abstinence. In comparison to pedal response rates during a saline control period, 18 dogs showed decreased rates of responding for morphine during the initial 3-week exposure. Following subsequent passive establishment of dependence in seven dogs, they self-administered morphine and maintained dependence. Following enforced abstinence periods of 1 to 6 months the seven dogs relapsed to self-administration of morphine when it was again made available. In contrast, additional dogs offered food or amphetamine reinforcements showed marked increases in pedal responding for these reinforcements within a few days after initial exposure. The results indicate that in postdependent dogs that had maintained their dependence on morphine by self-administration, effects other than those experienced during the initial exposure to morphine are responsible for relapse. 23 references. (Author abstract)

150320 Saper, Clifford B.; Sweeney, Daryl C. Washington Univ. School of Medicine, St. Louis, MO 63110 Enhanced appetitive discrimination learning in rats treated with alpha-methyltyrosine. **Psychopharmacologia (Berlin). 30(1):37-44, 1973.**

The mechanism of the action of alpha-methyltyrosine (alpha-MT) on nondiscriminated avoidance in 32 male albino Sprague - Dawley rats who were trained on a black white discrimination for water reward was investigated. Forty eight hours later, half were tested for memory of the task and the other half trained on a reversal. The Ss received alpha-MT, an inhibitor of catecholamine (CA) biosynthesis, by multiple i.p. injections of 50mg/kg before the training session, before the testing or reversal, before both, or before neither. Data analysis showed that drugged rats learn the black white discrimination in fewer trials, but have longer latencies. These data are contrasted to alpha-MT depression of the conditioned avoidance response (CAR) and the difference is attributed to the role of CA in motor ability and in attention. 28 references. (Author abstract modified)

150322 McMillan, D. E. Dept. of Pharmacology, School of Medicine, University of North Carolina, Chapel Hill, NC 27514 Drugs and punished responding: III. punishment intensity as a determinant of drug effect. **Psychopharmacologia (Berlin). 30(1):61-74, 1973.**

The effects of minor tranquilizers and sedative hypnotics on responding punished with electric shock intensities ranging from 2.5to 5.2ma were investigated in three adult male white Carneaux pigeons. Morphine does not increase punished

responding at any shock intensity. Chlorpromazine increased punished responding only when the dose was very large (30mg/kg) and only when the shock markedly suppressed responding. Pentobarbital and diazepam produce large increases in the rate of punished responding. These increases in punished responding depend on the shock intensity and on the control rate of responding. 20 references. (Author abstract modified)

150324 Smith, Donald F.; Smith, Helle B. Psychopharmacology Research Unit, Statshospitalet, DK-8240, Risskov, Denmark The effect of prolonged lithium administration on activity, reactivity, and endurance in the rat. **Psychopharmacologia (Berlin). 30(1):83-88, 1973.**

The effect of prolonged lithium administration on activity, reactivity and endurance was investigated in 66 male albino Wistar rats. The rats were fed a diet containing lithium which maintained their serum lithium levels between 0.3and 0.9mEq/l for 1 week prior to behavioral tests. The behavior was measured in the open field activity wheel, Skinner box, jiggle cage and swim to exhaustion tests. Lithium decreases the voluntary activity of the rats without affecting their reactivity or muscle strength. 22 references. (Author abstract modified)

150325 Hasegawa, Yasuo; Ibuka, Nobuko; Iwahara, Shinkuro. Dept. of Psychology, Tokyo Univ. of Education, 3-29-1 Otsuka, Tokyo, Japan 112 Effects of chlordiazepoxide upon successive red-green discrimination responses in Japanese monkeys, Macaca fuscata. **Psychopharmacologia (Berlin). 30(1):89-94, 1973.**

The effects of chlordiazepoxide upon successive go/no go type red green discrimination responses for food following intramuscular saline were investigated in 10 adult Japanese monkeys, Macaca fuscata. After reaching a 90% correct criterion, the monkeys were injected with 20mg/kg of chlordiazepoxide and then tested on the same successive task or on the simultaneous red green discrimination task. Chlordiazepoxide disrupts waiting (no go) response on the successive discrimination task, without affecting discrimination itself as shown by their perfect results on the simultaneous discrimination task. The result is interpreted in terms of the drug's disinhibitory effects. 7 references. (Author abstract modified)

150350 Oliverio, Alberto; Castellano, Claudio; Renzi, Paolo; Sansone, Mario. Laboratorio de Psicobiologia e Psicofarmacologia, C.N.R. Via Reno 1, Rome, Italy Decreased sensitivity of septal mice to impairment of two-way avoidance by chlorpromazine. **Psychopharmacologia (Berlin). 29(1):13-20, 1973.**

The sensitivity of septal mice to chlorpromazine was investigated using 160 male A/J mice. Septal brain lesions resulted in a significant improvement in shuttle box avoidance responses. The septal animals were hyposensitive to the effects of chlorpromazine (0.5, 1.0, 1.5, and 2.0mg/kg) on avoidance behavior. The lowered sensitivity of these animals to the drug was evident during avoidance acquisition and when chlorpromazine was administered to previously trained mice. The results are explained in terms of a possible reduction in the adrenolytic action of chlorpromazine due to a lesion induced deficit in the central adrenergic pathways, although a decrement in the inhibitory inputs to the reticular activating system may also account for the data. 28 references. (Author abstract modified)

150352 Hansen, Mulloy G.; Whishaw, Ian Q. Dept. of Psychology, Univ. of Lethbridge, Lethbridge, Alberta, Canada The effects of 6-hydroxydopamine, dopamine and dl-norepinephrine on food intake and water consumption, self-stimulation, temperature and electroencephalographic activity in the rat. **Psychopharmacologia (Berlin). 29(1):33-44, 1973.**

The effects of intraventricular injections of 6-hydroxydopamine (OHDA), dopamine (DA), and dl-norepinephrine (NE) on food and water intake, EEG activity, core temperature, grooming behavior, and lateral hypothalamic self-stimulation rates were studied in 101 male albino rats. Daily treatments with OHDA (400microg) suppressed self-stimulation, eating, and drinking, and produced hyperresponsiveness to handling and synchronization of the cortical EEG during periods of nonmovement when tests were made 23 to 24 hours following treatments. DA (1000microg) inhibited eating, but NE (400microg) had no effects. On tests made in the first 5 hours following NE and DA treatment, hypothermia, inhibition of grooming, synchrony of the cortical EEG, and suppression of the amplitude of the hippocampal EEG were noted; the time course of these effects was similar with the two compounds. Following the first day of OHDA treatment, hypothermia and inhibition of grooming oc-

curred, but these changes were not observed following subsequent treatments. 18 references. (Author abstract modified)

150354 Lassen, J. Buus. Dept. of Pharmacology, A/S Ferrosan, DK 2860 Soeborg, Denmark The effect of amantadine and (+)-amphetamine on motility in rats after inhibition of monoamine synthesis and storage. **Psychopharmacologia (Berlin). 29(1):55-64, 1973.**

The effect of subcutaneously administered amantadine and (+)-amphetamine on motility was investigated using adult female Wistar rats. Amantadine (50 and 100mg/kg) induced a moderate increase in motility, while (+)-amphetamine (1, 2.5, and 5mg/kg) showed a more potent locomotor stimulating effect. Stereotyped licking was found during the hypermotility induced by 5mg/kg of the latter. Pretreatment with the catecholamine synthesis inhibitor, alpha-methyl-p-tyrosine, inhibited the effect of (+)-amphetamine but not that of amantadine. Reserpine potentiated the effects of both drugs. Tetrabenazine antagonized the hyperactivity produced by (+)-amphetamine but potentiated amantadine induced hyperactivity. Amphetamine - induced stimulation may depend on the release of catecholamines from a small, newly synthesized, reserpine resistant pool. Amantadine may exert both a certain dopamine receptor stimulating effect as well as dopamine and norepinephrine release. 36 references. (Author abstract modified)

150356 Syme, Lesley A.; Syme, G. J. Dept. of Psychology, Univ. of Canterbury, Christchurch, New Zealand Effects of lithium chloride on the activity of rats tested alone or in pairs. **Psychopharmacologia (Berlin). 29(1):85-89, 1973.**

The possible potentiation of the effects of lithium on spontaneous activity via interaction with social test conditions was studied using 128 group-housed male rats. The animals were injected with 3meq/kg of lithium chloride, after which they were tested on an activity platform either alone or in pairs 20 minutes or 3 hours postinjection. Contrary to previous findings, the lithium treated animals were less active than a group of saline controls during both test periods. However, the activity of the saline control animals tested alone after 3 hours was less than that exhibited by the same group after 20 minutes. The lithium treated group, however, was more active after 3 hours than after 20 minutes. This difference in activity, which could be interpreted as a lithium-social or lithium-time interaction, is more simply explained in terms of the effects of the social isolation occurring between drug administration and testing. 10 references. (Author abstract modified)

150380 Zemlan, Frank P.; Ward, Ingeborg L.; Crowley, William R.; Margules, D. L. Dept. of Psychology, Villanova Univ., Villanova, PA Activation of lordotic responding in female rats by suppression of serotonergic activity. **Science. 179(4077):1010-1011, 1973.**

The effect of suppression of serotonergic activity on the activation of lordotic responding was studied in female Sprague-Dawley rats. After systemic administration of several serotonergic antagonists, female rats that had been ovariectomized, adrenalectomized, and estrogen primed showed lordotic responding. Lordosis could also be elicited after direct placement of serotonergic receptor blockers into hypothalamic sites known to contain serotonergic terminals. None of the treatments activated the soliciting component of the estrous behavior pattern of the female rat. It is postulated that the hypothalamus contains serotonergic terminals which suppress lordotic responding. 19 references. (Author abstract modified)

150388 Grilly, D. M.; Ferraro, D. P.; Marriott, R. G. Department of Psychology, University of New Mexico, Albuquerque, NM 87106 Long-term interactions of marijuana and behaviour in chimpanzees. **Nature (London). 242(5393):119-120, 1973.**

Observations, over a 2-year period during marihuana research with chimpanzees, are reported. Most of the behavior studies were performed with a delayed matching to sample task, which involved presenting one of six sample stimuli on a translucent key mounted on a stimulus response panel fixed to the chimpanzee's cage. The chimpanzee had to press this sample key 10 times when the sample stimulus went out and a delay period was initiated. After the delay, a different stimulus was presented on each of the three choice keys mounted below the sample key, one of which was the same as that previously presented, and delivered a reward if chosen. Observations suggested that the intermixing of drug and nondrug experiences, as well as the number of drug experiences, may be important to the development of marihuana tolerance. A definite pattern of long-term marihuana behavior interactions was established. By increasing the length of the delay, a statistically reliable drug effect was

obtained, but diminished after the animals had experienced a number of nondrug to drug transitions. In general, the performance of experienced human marihuana users on behavioral tasks is not as susceptible to the disruptive effects of marihuana as is that of drug naive humans. 8 references.

150405 Tseng, L. F.; Walaszek, E. J. Dept. of Pharmacology, University of Kansas Medical Center, Kansas City, KS 66103 Blockade of d-amphetamine-induced stereotyped behavior by bulbocapnine. **Pharmacology. 7(4):255-258, 1972.**

The effects of small doses of bulbocapnine on the stereotyped behavior induced by intraperitoneal injections of d-amphetamine were studied in Holtzman female rats. The animals were injected with 5mg/kg d-amphetamine and exhibited constant sniffing, licking, and biting within 15 to 40 minutes after injection. One hour after injection, the rats were given bulbocapnine in doses ranging from 5mg/kg to 40mg/kg. Bulbocapnine exerted a transient antagonistic effect against the stereotyped behavior of amphetamine. A dose of 7.5mg/kg blocked the behavior within 2 to 5 minutes after injection and lasted 5 to 8 minutes. With doses of 20 and 40mg/kg bulbocapnine, the blockade lasted longer; but catatonia was induced in some rats. The duration of catatonia was shorter than that of the blockade of the stereotyped behavior of d-amphetamine by bulbocapnine. The blockade of the behavior may be due to the blocking of the dopamine receptor by bulcocapnine. The data indicate an interaction of bulbocapnine and dopamine at the central dopamine receptor sites. 9 references.

150406 Kostowski, W.; Rewerski, W.; Piechocki, T. Dept. of Experimental Pharmacology, Medical Academy of Warsaw, Krakowskie Przedmiescie 26/28, Warsaw 64, Poland II. The effects of some hallucinogens on aggressiveness of mice and rats. **Pharmacology (Basel). 7(4):259-263, 1972.**

The effects of N-methyl-3-piperydyl-benzilate hydrochloride (JB-336), bufotenine, psilocybin, and ibogaine, on the aggressiveness of isolated mice and rats were investigated. Aggressiveness was induced by isolating the animals for a period of 14, 21 or 28 days. All drugs were dissolved in saline and injected intraperitoneally. Control animals received only saline. Aggressiveness in mice was measured 30 and 90 min after injection; in rats aggressiveness was measured 45 min after injection. In test with mice the drug action depended on the time of isolation. JB-336 markedly reduced the score of aggressiveness and prolonged the latency. In mice isolated for 14 days the drug effect was observed 30 min after injection; in mice isolated for 28 days drug action occurred 90 min after injection. Bufotenine failed to change significantly aggressiveness and latency of attack in animals isolated 14 days; in mice isolated 28 days, the only significant decrease of aggressiveness was observed after 90 min. Psilocybin showed its action after 90 min in both groups of mice. Ibogaine decreased aggressiveness after 90 min only in mice isolated 14 days. In 45 of 54 control rats the isolated animals killed their victims within 1 minute of exposure. Psilocybin and bufotenine markedly reduced the killing response. JB-336 exerted a similar, but less expressed effect, and ibogaine was practically inactive. Hallucinogens appear to decrease rather than increase aggressiveness in animals exposed to prolonged isolation. 11 references.

150414 Borgen, Lowell A.; Davis, W. Marvin. Dept. of Pharmacology, Univ. of Mississippi, University, MS 38677 Vehicle and route of administration as parameters affecting operant behavioral effects of delta9-tetrahydrocannabinol. **Journal of Pharmaceutical Sciences. 62(3):479-480, 1973.**

Four vehicles administered via two injection routes were compared as a test system for cannabinoid activity on the operant behavior of rats. Aqueous suspensions based on polyvinylpyrrolidone, polysorbate 80, and a polysorbate 65-sorbitan monolaurate combination all were effective vehicles for intraperitoneal or subcutaneous absorption of the cannabinoid. An olive oil solution was poorly absorbed. The polyvinylpyrrolidone dispersion appeared to have the most rapid onset of action, while the polysorbate 65-sorbitan monolaurate combination had the longest duration of action. The test system chosen was the depression of operant responding of rats for food reinforcement. 9 references. (Author abstract modified)

150420 Fried, Peter, A.; Husband, Carol A. Dept. of Psychology, Carleton University, Ottawa, Ontario, Canada K1s 5B6 Depth perception in rats following acute or chronic injections of Dl-delta9-tetrahydrocannabinol. Depth perception in rats following acute or chronic injections of Dl-delta9-tetrahydrocannabinol. **Life Sciences. 12(7):289-295, 1973.**

Depth perception in male hooded rats after either one or 22 injections of 0.5mg/kg or 4mg/kg dl-delta9-tetrahydrocannabinol (THC) was investigated with a visual cliff apparatus. There were no differences in depth perception between the acute or chronic drugged animals when compared with either vehicle or needle pierced controls. At both dosage levels the rats in the acute THC condition took significantly longer to descend to either the shallow or deep side. 15 references. (Author abstract)

150422 Gawienowski, Anthony M.; Merker, Jerry W.; Damon, Richard A., Jr. Dept. of Biochemistry and the Dept. of Veterinary and Animal Sciences, University of Massachusetts, Amherst, MA 01002 Alteration of sexual behavior and sex accessory glands by p-chlorophenylalanine and testosterone. **Life Sciences. 12(7):307-315, 1973.**

The effect of p-chlorophenylalanine on sexual behavior and sex accessory glands when given in conjunction with testosterone and pargyline, a monoamine oxidase inhibitor, was investigated in male rats. Treatment with both p-chlorophenylalanine and testosterone propionate resulted in significant changes in the weights of the testes, seminal vesicles, bulbourethral, preputial and prostate glands. Homosexual mounting bheavior was elicited by p-chlorophenylalanine, and testosterone enhanced this effect. An optimum testosterone dose level (1mg) is indicated for the largest behavior and tissue weight response. 14 references. (Author abstract modified)

150423 Friedman, Eitan; Starr, Norma; Gershon, Samuel. Neuropsychopharmacology Research Unit, New York University Medical Center, 550 First Ave., New York, NY 10016 Catecholamine synthesis and the regulation of food intake in the rat. **Life Sciences. 12(7):317-326, 1973.**

The role of hypothalamic catecholaminergic neurons in the regulation of food intake was investigated in male Sprague-Dawley rats. Food deprivation did not change hypothalamic norepinephrine levels but increased dopamine levels. Catecholamine concentrations in the rest of the brain were unaltered by food deprivation. The depletion in hypothalamic catecholamines caused by alpha-methyl-p-tyrosine (alpha-MPT) was increased by food deprivation. In the rest of the brain, only the dopamine depletion observed after alpha-MPT treatment was increased. Application of alpha-MPT intrahypothalamically to food deprived animals inhibited food intake, while dopamine-beta-hydroxylase inhibitors (DDC and FLA 63) caused an increase in food intake. Food intake was also increased by L-Dopa injected intrahypothalamically alone and in combination with FLA 63. The results support a role for both norepinephrine and dopamine in the regulation of food intake and suggest a role for newly synthesized catecholamines in the regulation of this behavior. 19 references. (Author abstract)

150667 Ayhan, I. H.; Randrup, A. Sct. Hans Mental Hospital, Department E, DK-4000, Roskilde, Denmark Behavioural and pharmacological studies on morphine-induced excitation of rats. Possible relation to brain catecholamines. **Psychopharmacologia (Berlin). 29(4):317-328, 1973.**

The influence of small acute doses (1 to 5mg/kg) of morphine on behavior in adult Wistar rats was investigated and compared to amphetamine induced stimulation. The smaller doses (1 to 2mg/kg) of morphine produces stimulation of locomotion, rearing, grooming, eating and drinking. Inhibition of the catecholamine biosynthesis by alpha-methyl tyrosine and FLA-63 or blockade of the catecholamine receptors in the brain could inhibit the behavioral stimulant effects of morphine. Comparison between the morphine induced hyperactivity and the stimulation behavior by amphetamine shows that the behavioral profiles of the excitation produced by these drugs differ significantly from each other. It is concluded that morphine stimulates the behavior of rats probably by a different mechanism from that of amphetamine. 48 references. (Author abstract modified)

150671 File, Sandra E. Dept. of Psychology, City of London, Polytechnic, Central House Annexe, Whitechapel High St., London E1 7PF, England Potentiation of the effects of chlorpromazine on exploration in the rat by a prior experience of the drug. **Psychopharmacologia (Berlin). 29(4):357-363, 1973.**

The potentiation of the effects of chlorpromazine on exploration in 100 male hooded rats by a prior experience of the drug was investigated. Chlorpromazine increased the latency with which rats started to explore a new environment, and decreased the time they spent in exploring it and the novel objects in it. These effects are significant with a 4mg/kg, but not with a 2mg/kg dose. There is a potentiation of these drug effects in animals with experience of the drug in

an environment offering little opportunity for exploration (the home cage), and 2mg/kg now becomes the effective dose. The responses made to the first drug situation affects the behavior in the second. 16 references. (Author abstract modified)

151224 Grant, Michael J.; Grant, Ruth M. Univ. of Bridgeport, Bridgeport, CT 06604 The effects of scopolamine on preexposure to a learning apparatus. **Bulletin of the Psychonomic Society. 1(4):238-240, 1973.**

Male mice were divided randomly into either saline treatment or scopolamine treatment groups, with each group subdivided into either an exposed or nonexposed group. Exposed group animals were injected before being allowed to explore a shuttlebox as preexposure sessions; nonexposed Ss were injected and placed in a carrying cage. After ten sessions, all Ss were given a series of signaled shuttle avoidance trials. The saline exposed group required significantly fewer trials to criteria than the scopolamine exposed group. In addition, scopolamine was capable of attenuating the normally occurring decrement in locomotor activity. Data show agreement with previous studies indicating that preexposure to a learning apparatus can facilitate subsequent learning in that apparatus. 7 references. (Author abstract modified)

151228 O'Boyle, Michael; Looney, Thomas A.; Cohen, Perrin S. Florida State Univ., Tallahassee, FL 32306 Suppression and recovery of mouse killing in rats following immediate lithium-chloride injections. **Bulletin of the Psychonomic Society. 1(4):250-252, 1973.**

Rats with no prior exposure to mice or drugs were used as Ss in a study which investigated whether a toxic drug could be used to suppress a highly probable behavior. Six rats which consistently killed mice were divided into three pairs. One pair received an injection of lithium chloride, a drug which had previously been used to produce taste aversion learning. The second pair of rats received saline injections immediately after killing mice, while the third pair of Ss was untreated. Results clearly demonstrated that immediate lithium chloride injections suppressed mouse killing in rats. The suppression of mouse killing was not due to the injection procedure alone or to the residual physiological effects of the drug. It is concluded that toxic drugs can be used to suppress behaviors other than eating and drinking; however, the mechanisms that control avoidance behavior are not yet clearly understood. 10 references.

151309 Gay, George R.; Sheppard, Charles W. Haight-Ashbury Free Medical Clinic, San Francisco, CA 'Sex-crazed dope fiends' -- myth or reality? **Drug Forum. 2(2):125-140, 1973.**

Fifty young patients at the Haight-Ashbury Free Medical Clinic were questioned in regard to their drug - sex practices. Free subjective expression was encouraged. The exquisite personal and social overlay of each respondent is recognized; nevertheless this study is considered to be representative of the psychopharmacologic sexual response of this particular group. Comparison studies into the psychopharmacologic mores and customs of other subcultures are needed in order to fully understand predictable drug - sex responses. 21 references. (Author abstract modified)

151591 Horlington, M.; Rogers, D. J. Smith and Nephew Research Ltd., Gilston Park, Harlow, Essex, England The influence of sound pressure level upon the potency of phenobarbitone sodium and meprobamate against audiogenic seizures in mice. **Life Sciences. 12(6):271-277, 1973.**

The influence of changes in the sound pressure level on the effects of sodium phenobarbitone and meprobamate on audiogenic seizures in mice was studied. Groups of mice (F1 result of cross between DBA/1 males and SNR Albino females) responding to a 115dB electric bell sound stimulus with preconvulsive running were treated with 2.5mg/kg sodium phenobarbitone and retested with stimuli of 115, 120, 125, and 130dB. A negative linear relationship was found to exist between sound pressure level and the percentage of animals protected by the drug treatment. Protective dose 50% values for both sodium phenobarbitone and meprobamate were dependent upon the stimulus sound pressure level, in that they increased with increasing sound pressure intensity. 13 references. (Author abstract modified)

151630 Davis, W. Marvin; Smith, Stanley G. Dept. of Pharmacology, School of Pharmacy, Univ. of Mississippi, University, MS 38677 Blocking effect of alpha-methyltyrosine on amphetamine based reinforcement. **Journal of Pharmacy and Pharmacology (London). 25(2):174-177, 1973.**

The effects of alpha-methyltyrosine (alpha-MT) on the reinforcing effects of amphetamine were investigated using adult male albino Holtzman rats. It was found that alpha-MT blocked the action of (+)-amphetamine essential to the reacquisition of a bar-press response originally learned under amphetamine reinforcement. In a second experiment in which amphetamine reinforcement was paired with a buzzer tone, pretreatment with alpha-MT blocked the occurrence of conditioned reinforcement as measured by bar-pressing for the buzzer. The data indicated no motor depression as a result of alpha-MT treatment, indicating instead effective reinforcer blocking. It is suggested that alpha-MT or similar drugs might have potential value in the treatment of drug abuse of the amphetamine type. 14 references.

151815 Iprus-Shotter, A. V. Tartu, USSR /Action of carbamazepine (tegretol) and aphendione on reactions provoked by intraamygdaloid administration of carbacholine to rabbits./ Deystviye karbamazepina (tegretola) i afendiona na reaktsii, vyzvannyye intraamigdalyarnym vvedeniyem karbakholina u krolikov. **In: Portnov, A., Epilepsiya (klinika, patogenez, lecheniye). Moscow, Institut psikhiatrii MZ RSFSR, 1972. 543 p. (p. 528-530). 2 rub.**

Experiments conducted with 18 rabbits with implanted electrodes have shown that carbamazepine possessed a strong inhibiting effect on behavioral reactions as well as on the convulsive discharges provoked by intraamygdaloid administration of carbacholine, whereas aphendione exhibited a weak inhibiting action on both types. The inhibitory effect of carbamazepine was especially expressed on experimental temporal epileptic reactions. The drug had a weaker effect on the orienting reaction. In relation to emotional affective and motor reactions, carbamazepine manifested an even stronger inhibitory action than phenobarbital. The results indicated that carbamazepine can be recommended with confidence for use in psychomotor epilepsy. Aphendione manifested an inhibitory effect primarily in regard to the affective component of psychomotor convulsive attacks.

152191 Etkin, Michael W.; Chiszar, David; Worsham, Robert W. Virginia Commonwealth Univ., Richmond, VA 23220 /Avoidance decrement phenomena and measurements of drug effects./ Frequency distribution analysis: an insight into the avoidance decrement phenomenon. Research Report, NIMH Grant MH-18870, 1973. 12 p.

The avoidance decrement phenomenon was replicated in a two-way shuttle and a bar-press avoidance task. Ss were a naive female Sprague-Dawley albino rat in the first experiment and a naive male Wistar albino rat in the second experiment. Similarities were demonstrated between the avoidance decrement phenomenon and Pavlovian retardation. These included amenability to experimental disinhibition which was produced through the use of an external inhibitor, and a gradual retardation of response latencies which preceded the loss of the avoidance response. The retardation became apparent through the analysis of parameters of response frequency distribution. 10 references. (Author abstract)

152213 Davis, W. Marvin; Smith, Stanley G. Dept. of Pharmacology, School of Pharmacy, Univ. of Mississippi, University, MS Alpha-methyltyrosine to prevent self-administration of morphine and amphetamine. **Current Therapeutic Research. 14(12):814-819, 1972.**

The effects of alpha-methyltyrosine on self-administration of morphine and amphetamine were studied in 16 adult male Holtzman Sprague-Dawley rats. The rats were equipped with jugular cannulas and were given the opportunity to self-administer intravenous doses of morphine sulfate (32mcg/kg) or d-amphetamine sulfate (15mcg/kg) by means of a bar-press response which activated an injection device. Pretreatment with L-alpha-methyltyrosine (3 intraperitoneal doses of 75mg/kg during an 8-hour period prior to the experimental session) blocked the development of self-administration behavior toward both drugs. This result is interpreted as a blockade of the mechanism by which these agents act as primary positive reinforcers. Because of this property, it is suggested that alpha-methyltyrosine may be applicable in procedures designed to produce extinction of drug seeking behavior in persons abusing opiates and/or amphetamines. 15 references. (Author abstract)

152428 Panksepp, Jaak; Zolovick, A. J.; Jalowiec, John E.; Stern, Warren C.; Morgane, P. J. Department of Psychiatry, Bowling Green State University, Bowling Green, OH Fenfluramine: effects on aggression. **Biological Psychiatry. 6(2):181-186, 1973.**

The effects of fenfluramine on aggression were studied in rats and cats. Fenfluramine was found to depress agonistic postures and fighting in all pairs of rats; 5-hydroxytryptophan (5-HTP) had no significant effects on fighting. The hissing thresholds for cats were significantly elevated 3-5 hr after fenfluramine administration; 5-HTP decreased thresholds in two animals. Both fenfluramine and 5-HTP also markedly enhanced slow wave activity and decreased rapid eye movement and waking. Results indicate that the antiaggressive effect of fenfluramine is due either to some direct effect on adrenergic activity or some interactive effect on the functions of both adrenergic and serotonergic neural systems. It is concluded that fenfluramine may have another useful property besides appetite reduction. 16 references.

152431 Kulkarni, A. S. Department of Pharmacology, Human Health Research and Development Laboratories, Dow Chemical Company, Zionsville, IN Scratching response induced in mice by mescaline and related amphetamine derivatives. **Biological Psychiatry. 6(2):177-180, 1973.**

A mescaline dose related induction of scratching response in mice was examined. A rapid tolerance to this effect was apparent. Four substituted 2,5-dimethoxy-amphetamines were also studied for induction of scratching: 4-methyl (a psychotomimetic in man); 4-ethyl; 4-isopropyl analogs were increasingly potent in inducing scratching; and 4-tertiary butyl analog was inactive. Rapid tolerance to the effect was present. 11 references. (Author abstract modified)

152432 Eichelman, Burr S., Jr.; Thoa, Nguyen B. Laboratory of Clincial Psychobiology, National Institute of Mental Health, Bethesda, MD The aggressive monoamines. **Biological Psychiatry. 6(2):143-164, 1973.**

Three aggressive behaviors in the rat (predatory, irritable, and spontaneous aggression) which appear to function through different brain amine systems were examined. Predatory aggression is facilitated by p-chlorophenylalanine with concurrent serotonin depletion. Irritable aggression is altered by modifications in norepinephrine levels and metabolism as with 6-hydroxydopamine, 6-hydroxydopa, lithium, rubidium, or chronic stress. Spontaneous aggression is related to dopamine metabolism being stimulated by apomorphine and L-dopa, particularly in rats pretreated with 6-hydroxydopamine. The pharmacological characteristics of rat aggression suggest that categories of aggressive behavior must be clearly defined to organize the pharmacology of new drugs, and also the effects of familiar drugs on the behavior of other species, including man. 82 references. (Author abstract modified)

152525 Baum, Morrie. Departement de Psychologie, Universite de Moncton, Moncton, New Brunswick, Canada Extinction of avoidance in rats: the effects of chlorpromazine and methylphenidate administered in conjunction with flooding response (prevention). **Behaviour Research and Therapy. 11(3):165-169, 1973.**

The effects of chlorpromazine and methylphenidate administered in conjunction with the flooding response were studied in rats. Rats were trained to avoid 1.3mA shock, and following learning were divided into three groups which were injected with water, chlorpromazine or methylphenidate. Each group then received 5 min of flooding (response prevention). Behavior displayed during flooding was differentially affected, with chlorpromazine reducing the amount of abortive avoidance behavior displayed and increasing the amount of inactivity. The stimulant, methylphenidate, had no significant effect relative to the placebo. One day later, extinction of the avoidance response was found to occur rapidly in all three groups. The results suggest that tranquilizers administered in conjunction with flooding can diminish the stressfulness of the procedure without adversely affecting its efficacy. 16 references.

153042 Van Abeelen, J.; Daems, J.; Douma, G. Genetics Laboratory, University of Nijmegen, Driehuizerweg 200, The Netherlands Memory storage in three inbred mouse strains after injection of cycloheximide. **Physiology & Behavior. 10(4):751-753, 1973.**

Memory storage in three inbred mouse strains was studied after injection of cycloheximide. When tested for black - white discrimination learning in a water maze, mice of inbred strain BA showed spontaneous amnesia for the acquired response after 24 hr and 14 days. Both DBA/2 and C57BL/6 mice learned the task well 15 min after peripheral injection of saline alone or cycloheximide in saline, but, unlike the DBA/2 animals which had good retention under all three dose levels used, the animals of the C57BL/6 strain displayed loss of memory following administration of 100mg/kg of the protein synthesis

inhibitor. It is concluded that the effectiveness of cycloheximide in producing impairment of long-term memory storage depends on genetic factors. 19 references. (Author abstract)

153102 Nolan, Norma A.; Parkes, M. W. Pharmacology Department, Roche Products Limited, Welwyn Garden City, Herts, England The effects of benzodiazepines on the behaviour of mice on a hole-board. **Psychopharmacologia (Berlin). 29(3):277-288, 1973.**

The effects of benzodiazepines in reducing the number of head dips made on a subsequent exposure to a hold board were studied in mice. The period of first exposure that was effective in causing this reduction, the interval between exposure that must elapse before this effect appears and the duration of the effect were also determined. Chlordiazepoxide and other benzodiazepine tranquillizers given before initial exposure increased activity in small doses but had little effect upon subsequent activity. The drugs did not affect the characteristics of familiarization beyond a possibly slight shortening of the latent period. 25 references. (Author abstract)

153104 McFarlain, Robert A. Neurosurgery Department, University of Mississippi Medical Center, 2500 North State St., Jackson, MS 39216 Para-chlorophenylalanine: its effects on auditory discrimination. **Psychopharmacologia (Berlin). 29(3):263-270, 1973.**

The effects of para-chlorophenylalanine (P-CPA) on the discrimination of a low intensity tone were evaluated in rats. Ss were trained in a two lever operant chamber to press the right lever when the tone was off for food reinforcement. Errors were recorded and used to determine the percent of the total responses that were correct. After training to essentially errorless performance, the tone intensity was lowered until the rats were performing about 75% correct responses. After each rat achieved a stability criterion, it was treated with 150mg/kg of P-CPa in mineral oil or with mineral oil alone. P-CPA consistently elevated the percent of correct responses while depressing the overall response rate. Mineral oil had no effect on either measure. 21 references. (Author abstract)

153105 Martin, Joan C.; Ellinwood, Everett H., Jr. Department of Psychiatry RP-10, University of Washington, Seattle, WA 98195 Conditioned aversion to a preferred solution following methamphetamine injections. **Psychopharmacologia (Berlin). 29(3):253-261, 1973.**

The conditioned aversion to a preferred solution (.1% saccharin) following methamphetamine injections in rats were examined. The aversion persisted for the duration of the experiment. Saline injected controls exhibited a 90% saccharin solution preference. Rats which received 0.25mg/kg contiguous with the drug or animals given 3.0mg/kg paired with water exhibited as extreme a preference for the saccharin solution as did controls. It was concluded that neither a drug mediated taste quality change nor physiological cues associated with thirst were adequate explanations for the avoidance behavior exhibited but that the drug was perceived as a noxious stimulus at levels above 0.5mg/kg. 17 references. (Author abstract)

153107 Cappell, Howard; LeBlanc, A. E.; Endrenyi, L. Research Division, Addiction Research Foundation, 33 Russell Street, Toronto 179, Ontario, Canada Aversive conditioning by psychoactive drugs: effects of morphine, alcohol and chlordiazepoxide. **Psychopharmacologia (Berlin). 29(3):239-246, 1973.**

Behaviorally relevant doses of alcohol, chlordiazepoxide, and morphine were studied in an aversive conditioning paradigm with rats. The hypothesis that a drug may induce conditioned taste aversion due to general toxicity rather than specific pharmacological activity was tested. Drug injections were paired with exposure to saccharin aversion at one or more doses. Conditioned taste aversion by psychoactive drugs appeared to be a general phenomenon. Not all doses of each drug were effective but aversive control was demonstable in each instance with at least one dose in the range customarily selected for investigating behavioral pharmacology. Since comparable doses are known to facilitate rather than impair behavior in some situations, it was concluded that the taste aversion test is insufficient to establish the general behavioral toxicity of particular drug doses. 21 references. (Author abstract)

153217 Gaebelein, C.; Howard, J.; Galosy, R.; Obrist, P. University of North Carolina, Chapel Hill, NC Classical aversive conditioning in cats under various neuromuscular blocking drugs. **Psychophysiology. 10(2):206, 1973.**

At the twelfth annual meeting of the Society for Psychophysiological Research, a test of the

hypothesis that the conditioned cardiovascular response in cats would be differentially affected by the different neuromuscular blocking drugs was reported. Twelve cats were run under three different separate neuromuscular blocking drugs: d-tubocurarine, dimethyl d-tubocurarine, and succinylcholine. Differential classical aversive conditioning was the paradigm with CS- being randomly distributed. Each of the cats showed more responsiveness to the UCS (electrical shock) and greater conditioned decelerations within conditioning sessions under either dimethyl d-tubocurarine or succinylcholine than under d-tubocurarine. However, test trials at the beginning of the sessions following d-tubocurarine indicated that conditioning had taken place even though its appearance had been masked by d-tubocurarine in the previous conditioning session. (Author abstract modified)

153569 Houser, Vincent P.; Pare, William P. Veterans Administration Hospital, Perry Point, MD 21902 Measurement of analgesia using a spatial preference test in the rat. **Physiology & Behavior. 10(3):535-538, 1973.**

The measurement of analgesia using a spatial preference test in the rat is reported. Using a rectangular tilt cage, the aversive threshold to grid shock was defined as that intensity avoided 75% of the time. Each shock intensity was presented for 10 min during the 50 min daily session. Various narcotic (codeine sulfate, meperidine hydrochloride) and narcotic antagonist (pentazocine, cyclazocine), as well as a sedative hypnotic (sodium pentobarbital) analgesics, were assayed using this procedure. Both the narcotic and narcotic antagonist analgesics reliably elevated the aversive threshold in a dose dependent manner. These results could not be accounted for in terms of drug induced sedation. Sodium pentobarbital, in agreement with the clinical literature, demonstrated poor analgesic properties and was able to reliably elevate the aversive threshold only in doses that severely hampered the execution of the escape response. This technique appears to be specifically sensitive to the analgesic properties of drugs. As such, it should be useful in a screening procedure in the development of new analgesics, and for the investigation of possible underlying drug addiction. 14 references. (Author abstract)

153599 Wedeking, Paul W. Department of Pharmacology, The Squibb Institute for Medical Research, Princeton, NJ 08540 Comparison of chlordiazepoxide and food deprivation in rats on a fixed-ratio satiation schedule. **Physiology & Behavior. 10(4):707-710, 1973.**

The effects and interactions of injected chlordiazepoxide HCl (CDP) and food deprivation in rats conditioned on a food reinforced fixed-ratio 10 satiation schedule were studied in rats. Increasing the duration of food deprivation had no significant effect on the achievement of satiation. Decreasing the duration of deprivation produced significant decreases in responding for food pellets. Administering CDP elicited increases in responding for more reinforcements at all deprivation levels tested. The CDP effects were attributed to the disinhibition of the mechanisms regulating satiation. 11 references. (Author abstract)

154210 Stretch, Roger; Gerber, Gary J. Department of Psychology, University of Saskatchewan, Saskatoon, Saskatchewan, Canada Drug-induced reinstatement of amphetamine self-administration behaviour in monkeys. **Canadian Journal of Psychology (Toronto). 27(2):168-177, 1973.**

Drug induced reinstatement of amphetamine self-administration behavior in monkeys is reported. Following extinction of a drug reinforced operant, intravenous pretreatment with d-amphetamine before commencement of each daily session in an extended series led to consistent reinstatement of the characteristic pattern of drug self-administration behavior. The effect depended partially upon the amphetamine dose used as a pretreatment. Results suggest that a complex relationship between external discriminative stimuli and amphetamine pretreatment forms the basis for drug induced reinstatement of self-administration behavior. A state dependent learning process may also be implicated. 11 references. (Author abstract)

154639 Houser, Vincent P. Pavlovian Research Laboratory, Veterans Administration Hospital, Perry Point, MD 21902 Influence of changes in adrenergic and cholinergic activity upon acquisition of operant discrimination in albino rats. **Psychological Reports. 32(3):1311-1327, 1973.**

The effect of adrenergic and cholinergic drugs upon two discrete trial fixed interval reinforcement schedules that generate either high or low rates of unreinforced (S delta) responding was investigated in rats. Amphetamine and scopolamine

decreased high S delta rates while having no effect on low S delta rates. Withdrawal of amphetamine after acquisition under the drug led to a dramatic increase in S delta rates under both reinforcement schedules. Alpha methyl-p-tyrosine reduced high S delta rates, while pilocarpine had no effect on behavior. Results suggest that the similarities between the behavioral effects of amphetamine and scopolamine on appetitive schedules may primarily reflect their motivational properties. The data also indicate that withdrawal from chronic amphetamine administration can produce dramatic alterations in response rate even in cases where the acquisition of behavior is unaltered by chronic drug treatment. 34 references. (Author abstract)

154814 Miller, Loren L.; Drew, W. G. Department of Psychiatry, University of Kentucky College of Medicine, Lexington, KY 40506 Impairment of latent learning in the rat by a marihuana component. **Nature (London). 243(5408):473-474, 1973.**

In a latent learning experiment, 32 male rats were subjected to a multiple Y maze to determine the effects of a marihuana component. After habituation subjects were randomly assigned to one of four groups: latent learning drug (LAT-D); latent learning no drug (LAT-ND); control drug (CON-D); and control no drug (CON-ND). The results suggest that rats exposed to the maze under the influence of delta9-tetrahydrocannabinol (THC) may have learned less about the correct path to the goal. It is also possible that under THC, erroneous response patterns were established during exploration and these carried over to acquisition. 10 references.

155243 Barnett, Allen; Malick, Jeffrey B.; Taber, Robert I. Department of Pharmacology, Schering Corporation, Bloomfield, NJ Chemical and electrical treatment of aggression. **Psychopharmacology Bulletin. 9(3):17-18, 1973.**

The effects of diazepam, perphenazine, scopolamine, Sch 12679, and electroconvulsive shock (ECS) in four models of aggressive behavior (isolation induced aggression, footshock induced fighting in mice, muricide, and septal lesion aggression) in rats are studied to find a drug which will be effective against all or most of these behaviors. Sch 12679, a new benzazepine tranquilizer, was the only one of the drugs tested which antagonized all four models of aggression without producing evidence of concurrent ataxia or neurological impairment.

155245 Geyer, Mark A.; Mandell, Arnold J. Department of Psychiatry, School of Medicine, University of California at San Diego, La Jolla, CA Studies of enzymes and modulators in shock-induced fighting. **Psychopharmacology Bulletin. 9(3):18-19, 1973.**

The effects of d-amphetamine and l-amphetamine on locomotor activity and shock induced fighting in rats are reported. d-Amphetamine was found to be more potent than l-amphetamine with respect to behavioral activity. However, the two isomers were more similar in their effects on shock induced fighting. It is also found that central administration of dopamine but not of norepinephrine can increase shock induced fighting. 4 references.

155248 Eichelman, Burr S., Jr. Department of Psychiatry, Stanford University Medical Center, Stanford, CA Biogenic amines and their metabolism in the study of aggressive behavior in rats. **Psychopharmacology Bulletin. 9(3):21-22, 1973**

Alterations in the metabolism of biogenic amines and their effects on the aggressive behavior of rats are discussed. It is concluded that different models of aggression are more closely related to specific putative neurotransmitters. Alteration of serotonin metabolism can induce muricidal behavior; stimulation of dopaminergic terminals can induce spontaneous aggression; and alteration of adrenergic, probably noradrenergic, systems facilitiates irritable or shock induced aggression. 7 references. (Author abstract modified)

155410 Dougherty, John; Pickens, Roy. VA Hospital, Lexington, KY 40507 Fixed-interval schedules of intravenous cocaine presentation in rats. **Journal of the Experimental Analysis of Behavior. 20(1):111-118, 1973.**

Fixed-interval schedules of intravenous cocaine presentation were examined as a function of injection dose (0.32 to 0.64 mg/kg) and interval duration (200 to 400 sec) in two rats. Cocaine was found to exert a dose related temporal control over the initiation of responding that was unaffected by the fixed-interval contingency. Fixed-interval pause duration was linearly related to injection dose and was the same duration as the interresponse time found on continuous reinforcement schedules of cocaine presentation. The fixed-interval pause remained constant with changes in interval duration. Characteristic fixed-interval pat-

terns of responding were observed. However, overall response rates were inversely related to injection dose and directly related to interval duration. Running response rates varied unsystematically with both variables. These findings are at variance with results typically found in studies of fixed-interval food and electric shock presentation. 22 references. (Author abstract)

155411 Balster, Robert L.; Schuster, Charles R. Dept. of Psychiatry, Duke University, Durham, NC 27710 Fixed-interval schedule of cocaine reinforcement: effect of dose and infusion duration. **Journal of the Experimental Analysis of Behavior. 20(1):119-129, 1973.**

Rhesus monkeys were trained on a fixed-interval 9 min limited hold 3 min schedule of intravenous cocaine reinforcement. A 15 min timeout followed each reinforcement or limited hold expiration. An identical schedule of food reinforcement was interspersed in the session to assess rate modifying effects of the drug infusions not specific to drug reinforcement. In one experiment, response rate for cocaine reinforcement was shown to be a positive function of reinforcement magnitude for a dose range from 0 to 800 ug/kg/inj. At these doses, there was little effect on food reinforced responding except at the highest dose, where responding decreased. Results of the second experiment indicated that increasing the duration of the cocaine infusion produced a change in response rate similar to decreasing unit dose. The response rate change for a given increase in infusion duration was less at a unit dose of 400 ug/kg than at 200 ug/kg. 21 references. (Author abstract)

155904 Brown, Roger; Davis, James N.; Carlsson, Arvid. Dept. of Pharmacology, Univ. of Goteborg, Fack, S-400 33 Goteborg 33, Sweden Dopa reversal of hypoxia-induced disruption of the conditioned avoidance response. **Journal of Pharmacy and Pharmacology (London). 25(5):412-414, 1973.**

Dopa reversal of hypoxia induced disruption of the conditioned avoidance response was examined in rats. Data show that performance deficit resulting from hypoxia is alleviated by treatment with a peripheral decarboxylase inhibitor and dopa. This suggests that under conditions of low oxygen, central dopaminergic and possibly noradrenergic neurons are able to maintain conditioned avoidance behavior when transmitter precursor is supplied so that synthesis bypasses the oxygen requiring rate limiting step. The possible role of catecholamine metabolism for the altered behavior of hypoxia merits further study. 20 references.

156645 Winter, J. C. Dept. of Pharmacology, School of Medicine, State Univ. of NY at Buffalo, Buffalo, NY A comparison of the stimulus properties of mescaline and 2,3,4-trimethoxyphenylethylamine. **Journal of Pharmacology and Experimental Therapeutics. 185(1):101-107, 1973.**

The stimulus properties of the hallucinogenic drug mescaline and its nonhallucinogenic structural isomer, 2,3,4-trimethoxyphenylethylamine, were compared using female CFN rats. The Ss were first trained on a variable interval schedule of positive reinforcement, after which they were trained to respond under the influence of one of the experimental drugs and to refrain from responding when under the influence of the other. Later the Ss were punished when they responded under the influence of the latter drug. It had previously been determined that either mescaline or 2,3,4-TMPEA, when paired with saline in this paradigm, could serve as a discriminative stimulus. However, when the two drugs were used as the two discriminative stimuli, no evidence of discriminated responding was obtained. These data do not support the hypothesis that the different pharmacologic properties of hallucinogens and nonhallucinogens in man are reflected in distinctive stimuli in the rat. 26 references. (Author abstract modified)

156752 Maj, Jerzy; Sowinska, Helena; Baran, Leokadia. Institute of Pharmacology, Polish Academy of Sciences, Cracow, Poland Effects of amantadine, amphetamine and apomorphine on the locomotor activity in rats. **Life Sciences. 12(11):511-518, 1973.**

Comparison was made between the influences of amantadine, amphetamine, and apomorphine on the locomotor activity of female Wistar rats pretreated with alpha-methyltyrosine or reserpine plus alpha-methyltyrosine. It was found that alpha-methyltyrosine in normal and reserpinized rats did not change the stimulatory effect of amantadine or apomorphine, but that it abolished the stimulatory effect of amphetamine. It is suggested that, in rats, amantadine may have another mechanism of action in addition to that of its amphetamine-like mechanism of action. 25 references. (Author abstract modified)

156757 Stromberg, Ulf; Waldeck, Bertil. Dept. of Pharmacology, Univ. of Goteborg, Goteborg, Sweden Behavioural and biochemical interaction between caffeine and L-dopa. **Journal of Pharmacy and Pharmacology (London). 25(4):302-308, 1973.**

The modification by caffeine of the effects of different doses of L-dopa on locomotor activity and brain catecholamine levels was investigated in female albino mice. Caffeine, which in the dose used caused moderate locomotor stimulation by itself, did not alter the depressant effect on motility of medium doses of L-dopa. The hyperkinetic effect of higher doses of L-dopa was, however, potentiated by caffeine. Biochemically, the increase in dopamine levels seen after L-dopa administration was enhanced by caffeine. It is suggested that at least part of the potentiating effect of caffeine on the L-dopa induced hypermotility is related to the increased cerebral levels of dopamine. 23 references. (Author abstract)

156808 Rosen, A. J.; Cohen, M. E. Dept. of Psych., Univ of Illinois, Chicago, IL The effects of Cinanserin, a potent serotonin antagonist, on the acquisition of a running response in the rat. **Neuropharmacology (Oxford). 12(6):501-508, 1973.**

The effects of the serotonin antagonist Cinanserin on the acquisition of a running response were studied in 45 young male albino Sprague-Dawley rats. Three groups of hungry animals were given either saline placebo injections or injections of Cinanserin (12 or 36mg/kg, i.p.)and given 45 training trials in a straight alley for food reward. Thirty additional testing trials followed in which the subjects were run under the same injection conditions as in training or under either of the alternative injection conditions. The high drug dosage caused a significant performance impairment, but the effects did not persist into the testing phase when the subjects were taken off the high dose injections. In addition, the high dosage subjects consistently initiated the day's responding at a lower level than the previous experimental day's terminal performance asymptote. The low doses of the serotonin antagonist had little effect on runway performance. 22 references. (Author abstract modified)

156809 Nelson, W.; Halberg, F. Dept. of Pathology, Univ. of Minnesota, Minneapolis, MN 55455 An evaluation of time-dependent changes in susceptibility of mice to pentobarbital injection. **Neuropharmacology (Oxford). 12(6):509-524, 1973.**

The circadian rhythm in the sleep - resonse of mice to pentobarbital injection was studied using four dose levels in male Bagg albino mice. Characteristics of the rhythm, determined by least squares cosine fitting, varied significantly among the doses. Parallel line bioassay of the log transformed data permitted expression of the susceptibility rhythm as a variation in relative potency. Concomitant study of circadian rhythmic and age related changes in sleep response to pentobarbital injection indicated significant differences on both time scales, and the absence of interaction. At circadian phases of long and short sleep duration, the brain and blood pentobarbital concentrations were determined at various intervals postinjection, up to and including the time of awakening. The waking concentrations in the brain and blood were significantly higher at the circadian phase of short sleep duration, while time dependent differences in the rate of barbiturate disappearance from these sites could not be demonstrated. The waking brain pentobarbital concentration at a given circadian phase also differed between 4- and 9-month old mice. It is concluded that the parameters of a circadian rhythm in the response of mice to pentobarbital injection are dose dependent. A mathematical analysis is presented in the appendix. 33 references. (Author abstract modified)

156810 Olds, M. E.; Ito, M. Div. of Biology, California Institute of Technology, Pasadena, CA 91109 Noradrenergic and cholinergic action on neuronal activity during self-stimulation behavior in the rat. **Neuropharmacology (Oxford). 12(6):525-539, 1973.**

The effects of drugs with adrenergic and cholinergic actions on neuronal activity during self-stimulation behavior were studied using 48 unanesthetized, freely behaving male albino Holtzman rats. Two types of neuronal responses were studied: the occurrence of spikes with fixed latencies in relation to posterior lateral hypothalamic stimulation; and the suppression of spontaneously active neurons during stimulation of the same area. The first type of response was studied in the cingulate, the preoptic, and the ventral midbrain regions, and the second was studied in the middle hypothalamus. The drugs with adrenergic action were tetrabenazine and (+)-amphetamine; the drugs with cholinergic action were physostigmine and scopolamine. The different types of drugs were administered in pairs, with the second being given at the time of max-

imal effect of the first on self-stimulation behavior. Tetrabenazine reduced spike activity with fixed latencies in the ventral midbrain region, but not in the cingulate or preoptic regions at the time when it suppressed self-stimulating behavior. Amphetamine partially restored the frequency of spikes with fixed latencies in the midbrain when it reinstated self-stimulation. Tetrabenazine reduced the suppressant effect of hypothalamic stimulation (disinhibition) on neuronal activity in the middle hypothalamus. Amphetamine reinstated partially the suppressant action of stimulation on neuronal activity recorded in the middle hypothalamus at the time it reinstated self-stimulation behavior. Physostigmine and scopolamine produced the same effects as tetrabenazine and amphetamine on self-stimulation behavior, but they had no effect on neuronal activity. 46 references. (Author abstract modified)

157036 Riege, Walter H.; Cherkin, Arthur. Psychobiology Research Laboratory, Veterans Administration Hospital, Sepulveda, CA 91343 Retroactive facilitation of memory in goldfish by flurothyl. **Psychopharmacologia (Berlin). 30(3):195-204, 1973.**

In a study of retroactive facilitation of memory in goldfish, the spontaneous upstream swimming of goldfish into a quiet well was suppressed in one trial by electric shock. When trained fish were treated 3 min after training, with a 16 min exposure to convulsive solutions of flurothyl their retention of avoidance 16, 64, or 256 h later was facilitated. This retroactive facilitation (RF) of long-term memory in goldfish by flurothyl could not be attributed to proactive or aversive effects of the treatment. Goldfish treated in water saturated with carbon dioxide showed retrograde amnesia (RA). Neither the RF from flurothyl nor the RA from CO2 treatment were diminished when training and treatment were given to goldfish at 20 degrees or 15 degrees C. The memory enhancing effect of flurothyl convulsions, and its delayed onset, may relate to the dual stimulant - depressant action of the drug and differ from the RA effect reported for mice and chicks. 16 references. (Author abstract)

157039 Webster, C. D.; LeBlanc, A. E.; Marshman, Joan A.; Beaton, J. M. Clarke Institute of Psychiatry, Toronto M5T 1R8, Canada Acquisition and loss of tolerance to 1-delta9-trans-tetrahydrocannabinol in rats on an avoidance schedule. **Psychopharmacologia (Berlin). 30(3):217-226, 1973.**

The acquisition and loss of tolerance to 1-delta9-tetrahydrocannabinol in rats on an avoidance schedule is reported. Daily 12.0mg/kg intraperitoneal injections of 1-delta9-tetrahydrocannabinol produced tolerance on a number of behavioral measures in rats performing on a discriminated Sidman avoidance schedule. Tolerance developed during a 9 day drug series and reversed completely during a similar period under vehicle only injections. 19 references. (Author abstract)

157040 Weinstock, Marta; Speiser, Zipora. Tel Aviv University, Medical School, Department of Physiology and Pharmacology, Beilinson Hospital, P. O. Box 85, Petach-Tikva, Israel The effect of dl-propranolol, d-propranolol and practolol on the hyperactivity induced in rats by prolonged isolation. **Psychopharmacologia (Berlin). 30(3):241-250, 1973.**

The effect of dl-propranolol, d-propranolol and practolol on the hyperactivity induced in rats by prolonged isolation was studied. Exploratory behavior in an open field situation was found to be greatly increased in rats, isolated for 6-8 weeks, when compared with group housed controls. Propanolol, dl, and d and practolol reduced hypermotility, sniffing and rearing in isolated rats without affecting behavior of group housed rats. dl-Propanolol was needed to reduce exploratory behavior of group housed rats. Chlorpromazine reduced activity of isolated rats and group housed rats. The action of propranolol does not appear to result from central receptor blockade because of the almost equal activity of d- and dl-propranolol. Since practolol was also active in the test, the effect of the drugs also does not appear to result from general central nervous system depression. It is suggested that these compounds may reduce hyperactivity by diminishing an excessive release of central catecholamines. 26 references. (Author abstract)

157041 Wray, Samuel R. Department of Psychology, University of Hull, Hull HU6 7RX, England Possible catecholamine mediation of levallorphan-induced behavioural disruption in rats. **Psychopharmacologia (Berlin). 30(3):251-262, 1973.**

The hypothesis that the behavioral effects of levallorphan, a narcotic antagonist with psychotomimetic properties, may be due to an increase in activity of brain catecholamines was tested. Several behavioral studies, e.g. avoidance

conditioning, stereotypy and spontaneous locomotory activity, were used. dl-alpha-Methyl-para-tyrosine (AMPT) reduced central catecholamines and antagonized the levallorphan induced behavioral effects in rats. The central effects of this narcotic antagonist seem to depend on brain catecholamines. 30 references. (Author abstract)

157042 Wray, Samuel R. Department of Psychology, University of Hull, Hull HU6 7RX, England Interaction of stress and psychotomimetic drug-action: possible implication for psychosis. **Psychopharmacologia (Berlin). 30(3):263-268, 1973.**

The interactions between stress and psychotomimetic drug action are discussed in light of possible implications for psychosis. In the absence of scheduled shocks cyclazocine severely depressed avoidance responding in female hooded rats. No behavioral excitation was observed. Behavioral excitation is observed after cyclazocine injection, in the presence of scheduled shocks. The excitatory phase associated with the drug is dependent on the presence of the aversive stimulus. Thus, behavior - drug interaction is dependent on environmental factors. The interaction of stress on psychotomimetic drug action suggests a mechanism whereby environmental stress can play a crucial role in the genesis and underlying mechanism of schizophrenia. 16 references. (Author abstract)

157043 Gauron, Eugene F.; Rowley, Vinton N. Department of Psychiatry, College of Medicine, University of Iowa, Iowa City, IA 52242 Effects on offspring behavior of parental early drug experience and cross-fostering. **Psychopharmacologia (Berlin). 30(3):269-274, 1973.**

In a study of the effects of offspring behavior of parental early drug experience and cross-fostering, rats received a daily subcutaneous injection of trifluoperazine from days 5 to 30. This group was undisturbed until breeding. Some of the offspring of male and female drug animals were cross-fostered at birth to mothers of the same group as the biological mother; others were cross-fostered to mothers of the group other than the biological mother; others stayed with the biological mother. Findings indicated that a chronic drug experience in the infancy of albino rats detrimentally affects the learning ability of subsequent undrugged offspring. No support was obtained for the possibility that cross-fostering significantly affected offspring learning ability. There were small differences within the water and drug groups regardless of the rearing mother, but major differences were obtained between groups attributable to the drug, nondrug dimension. 4 references. (Author abstract)

157044 Connelly, John F.; Connelly, Jacqueline M.; Epps, James O. Department of Psychology and Counselor Education, Kansas State College of Pittsburg 11, Pittsburg, KS 66762 Disruption of dissociated learning in a discrimination paradigm by emotionally-important stimuli. **Psychopharmacologia (Berlin). 30(3):275-282, 1973.**

The hypothesis that an emotionally important stimulus (a tone paired with foot shock in training) can disrupt state dependence by mediating transfer between drug states was tested. Dissociated learning was demonstrated and disrupted in a modified T-maze escape learning task, using male hooded rats. The dissociation group was trained each day to run in one direction while in the D state (Librium, 15 mg/kg) and in the opposite direction when in the ND (sterile water) state. For the transfer group, a 10kHz tone was paired with foot shock during training in the D state, and 1kHz tone was paired with foot shock in the ND state. Dissociated responding occurred in nonshock testing sessions for the dissociation group. The tone drug state pairings were reversed during testing for the transfer group, and these Ss turned in the direction signalled by the tone as often as dissociation Ss turned in the drug state direction. The tones acquired the aversive motivational characteristics of foot shock and disrupted dissociated learning by mediating transfer between drug states. 9 references. (Author abstract)

157045 Cassens, Geraldine Pick; Mills, A. William Department of Psychology, Tufts University, Medford, MA 02155 Lithium and amphetamine: opposite effects on threshold of intracranial reinforcement. **Psychopharmacologia (Berlin). 30(3):283-290, 1973.**

The effects of lithium chloride on the behavior of rats aroused by electrical self-stimulation of the brain were compared to the effects of a known stimulant, d-amphetamine sulfate. The threshold of the reinforcing effect of this same electrical stimulation was determined by a classical psychophysical method. A threshold of reinforcement was defined by counting the postreinforcement pauses during concurrent fixed-ratio

and continuous reinforcement schedules. Lithium raises and d-amphetamine lowers the threshold. These threshold changes correspond to the opponent behavioral and biochemical actions produced by these drugs in man. 21 references. (Author abstract)

157064 Hoffmeister, Friedrich; Wuttke, Wolfgang. Vorstand des Institutes fur Pharmakologie der Bayer AG, 56 Wuppertal 1, Postfach 130105, West Germany Self-administration of acetylsalicylic acid and combinations with codeine and caffeine in rhesus monkeys. **Journal of Pharmacology and Experimental Therapeutics. 186(2):266-275, 1973.**

The self-administration of acetylsalicylic acid (ASA) and combinations with codeine and caffeine in rhesus monkeys was studied. One group of rhesus monkeys was allowed to press a lever for intravenous injections of saline, another group for intravenous injections of codeine; after lever pressing became stable, saline was replaced with ASA. With ASA, self-administration behavior was below the saline level. Further ASA did not maintain self-administration behavior previously generated by intravenous codeine. Mixtures of ASA with codeine when offered to monkeys trained for codeine self-administration produced decreases in the number of codeine self-injections. Caffeine was not self-administered more frequently than saline. A mixture of caffeine and codeine was taken at lower rates than solutions of codeine alone. When the three drugs were offered together in a mixture, the rates of self-administration were lower than those generated by ASA - codeine or caffeine - codeine mixtures as well as by codeine alone. The results failed to show considerable positive reinforcing properties for ASA. 11 references. (Author abstract)

157067 Shah, Nandkumar S.; Shah, K. R.; Lawrence, R. S.; Neeley, A. E. Ensor Research Laboratory, Wm. S. Hall Psychiatric Institute, Columbia, SC 29202 Effects of chlorpromazine and haloperidol on the disposition of mescaline-14C in mice. **Journal of Pharmacology and Experimental Therpeutics. 186(2):297-304, 1973.**

The effects of chlorpromazine (CPZ) and haloperidol on the disposition of mescaline-C14 in mice were studied. Chlorpromazine as well as haloperidol when injected 45 minutes after mescaline effectively blocked mescaline induced altered behavior within 7 to 10 minutes. In a reverse situation, mescaline administered 30 minutes after CPZ or haloperidol did not alter tranquilizing effects of the latter drugs. Pretreatment and posttreatment with CPZ resulted in marked prolongation of disappearance of mescaline in all organs examined. Haloperidol had no effect on mescaline disappearance. In animals pretreated with CPZ, the levels of mescaline were the same as controls at 1 hour but were markedly elevated at 2 and 3 hours. It is suggested that CPZ induced effects might be due to interference with metabolic processes necessary for maintenance of cell membrane permeability and/or with urinary excretion of mescaline. Although CPZ blocked mescaline induced altered behavior, its apparent effect on the disposition of mescaline may be of significance from the standpoint of drug interaction. 31 references. (Author abstract)

157072 Lyons, Joseph; Klipec, William D.; Steinsultz, Gail. Dept. of Psychology, University of Arizona, Tucson, AZ 85721 The effect of chlorpromazine on discrimination performance and the peak shift. **Physiological Psychology. 1(2):121-124, 1973.**

In a study of the effects of chlorpromazine on discrimination performance and the peak shift, four groups of pigeons were given discrimination training between two angles of line. Following mastery of the discrimination, all Ss were tested for generalization to several angles under one of four doses of chlorpromazine and a saline control test. For half of the Ss, the saline test was first followed by the drug test, with the remaining Ss receiving the tests in the reverse order. The results of the generalization test indicate that under the influence of the drug, the peak shift tends to be reduced or eliminated. These results are discussed as suggesting that discrimination learning involves two separate processes. The first involves learning not to respond and requires the buildup of inhibition to S-, while the second maintains discrimination performance and involves no inhibition. 2 references. (Author abstract)

157083 Steiner, Solomon S.; Stokely, Susan N. Dept. of Psychology, City College of the City University of New York, NY Methamphetamine lowers self-stimulation thresholds. **Psysiological Psychology. 1(2):161-164, 1973.**

According to Stein (1964a), amphetamines exert their effect on behavior by lowering neural reward thresholds. An alternative explanation is that amphetamines simply increase low rates of

04
157125

response. This is not an artifact produced by a generalized increase in response rate, since equated response rates at opposite ends of the intensity continuum were changed in different directions by the drug. The alternative explanation would predict that equated response rates should be changed in the same direction by the drug. Amphetamines were also shown to decrease variability at intensities which were around threshold prior to drug treatment. This is interpreted as being additive evidence that the drug is lowering threshold. 12 references. (Author abstract)

157084 Lyons, Joseph; Klipec, William D.; Eirick, Rodney. Dept. of Psychology, University of Arizona, Tucson, AZ 85721 The effect of chlorpromazine on the peak shift in the albino rat. **Physiological Psychology. 1(2):165-168, 1973.**

Five groups of rats were given discrimination training between two different floor positions. Following mastery of the discrimination task, each group was tested for generalization along the floor tilt dimension. For half the Ss, Test 1 followed an injection of one of five dose levels, depending on the group, of chlorpromazine, followed by a second test with a saline control injection. The remaining Ss were tested in the reverse order, i.e.,the saline test was first followed by the chlorpromazine test. The results indicate that the chlorpromazine reduced or eliminated the peak shift and reduced the area shift, but had little or no effect on discrimination performance. There was a strong dose dependent effect. 7 references. (Author abstract modified)

157099 Oliverio, Alberto; Eleftheriou, B. E.; Bailey, D. W. Laboratorio di Psicobiologia e Psicofarmacologia, C. N. R. via Reno 1 00198, Rome, Italy Exploratory activity: genetic analysis of its modification by scopolamine and amphetamine. **Physiology & Behavior. 10(5):893-899, 1973.**

A genetic analysis of exploratory activity modification by scopolamine and amphetamine is reported. Short-term exploratory activity was found to be significantly higher in C57BL/6By than in BALB/cBy inbred mice. Scopolamine reversed the activity levels in these strains. Basal exploratory activity levels and the effects of scopolamine on this behavioral measure assessed in these two strains, their reciprocal F1 hybrids, their recombinant inbred strains and three C57BL/6 congenic lines permitted characterization of a gene exerting a major effect on short-term exploratory activity and of a gene modulating the effects of scopolamine in this behavior. Amphetamine exerted opposite effects in relation to those exerted by scopolamine on activity and its action was found to be determined by a polygenic system. 17 references. (Author abstract)

157119 Byrd, Larry D. New England Regional Primate Research Center, Harvard Medical School, Southborough, MA 01772 Effects of d-amphetamine on schedule-controlled key pressing and drinking in the chimpanzee. **Journal of Pharmacology and Experimental Therapeutics. 185(3):633-641, 1973.**

Effects of d-amphetamine on schedule controlled key pressing and on water intake were studied in the chimpanzee. Water intake during the 2 hour session totaled 1.5to 2.0liters in one chimpanzee and was greatest during the 10 minute fixed-interval schedule. Effects of d-amphetamine on key pressing and drinking during the session, and on drinking in the living area following the session, were dose related. Mean rates of key pressing under the fixed-interval schedule were enhanced by 0.3to 1.0mg/kg, and mean rates under the fixed-ratio schedule were enhanced by 0.03 to 0.3mg/kg. Effects of d-amphetamine on key pressing during successive quarters of the fixed-interval schedule were a function of control rates of responding. Drinking during the session and drinking in the living area during the first 12 hours following the session were decreased by doses that had either little effect or an enhancing effect on key pressing. Drinking was nearly completely eliminated by 1.0to 3.0mg/kg of d-amphetamine. At none of the doses studied did d-amphetamine enhance drinking. 34 references. (Author abstract)

157125 Gehres, Larry D.; Randall, Carrie L.; Riccio, David C.; Vardaris, Richard M. Department of Psychology, Kent State University, Kent, OH 44242 Attenuation of hypothermic retrograde amnesia produced by pharmacologic blockage of brain seizures. **Physiology & Behavior. 10(6):1011-1017, 1973.**

The attenuation of hypothermic retrograde amnesia produced by pharmacolgic blockage of brain seizures in rats is reported. Rats injected with two anesthetic agents, Surital and Equithesin, showed markedly reduced hypothermia produced retrograde amnesia (RA) for a one trial passive avoidance task. Control animals injected with

saline showed almost complete anmesia. Dilantin sulfate, an anticonvulant drug, similarly attenuated hypothermia produced RA. Electrophysiological data indicated that hypothermia produced hypersynchronous paroxysmal spike activity in the hippocampus and the amygdala. Surital, Equithesin, and Dilantin attenuated the paroxysmal activity. It was suggested that hypothermia produces amnesia by disrupting hippocampal and amygdaloid activity and that Surital, Equithesin, and Dilantin prevent RA by blocking the spike activity. 25 references. (Author abstract)

157136 Wnek, D. J.; Leaf, Russell C. Rutgers College, Rutgers University, New Brunswick, NJ 08903 Effects of cholinergic drugs on prey-killing by rodents. **Physiology & Behavior. 10(6):1107-1113, 1973.**

The effects of cholinergic drugs on prey killing by rodents were studied. Pilocarpine induced some rats to kill mice. As tolerance or habituation to repeated doses occurred, increasing numbers killed mice and other prey. Methyl atropine, which selectively blocks peripheral actions of pilocarpine, increased killing induced by pilocarpine. Scopolamine, which blocks its central as well as peripheral actions, blocked induction of killing by pilocarpine. Mixed central cholinergic facilitative and peripheral cholinergic inhibitory actions on killing could explain the results. Other cholinergic agents, however, including nicotine, oxotremorine, arecoline, eserine, neostigmine, and methacholine were ineffective over a broad range of doses. Pilocarpine did not induce killing in guinea pigs and hamsters. It is concluded that if a central cholinergic system for selective control of killing exists in rodents, it is not easily activated. 21 references. (Author abstract)

157140 Cooper, Barrett R.; Grant, Lester D.; Breese, George R. Department of Pharmacology, Child Development Institute, University of North Carolina, School of Medicine, Chapel Hill, NC 27514 Comparison of the behavioral depressant effects of biogenic amine depleting and neuroleptic agents following various 6-hydroxydopamine treatments. **Psychopharmacologia (Berlin). 31(2):95-109, 1973.**

The effects of prior catecholamine reductions produced by 6-hydroxydopamine on the behavioral depressant effects of catecholamine depleting and neuroleptic drugs were examined using a continuously reinforced bar press response. In spite of large depletions, 6-hydroxydopamine treated rats showed no deficits in performance. When alpha-methyltyrosine or reserpine were administered at a dose which had minimal effect on responding in control animals, the 6-hydroxydopamine group in which both amines were reduced and the group preferentially depleted of dopamine showed severe deficits in bar press responding. The behavioral depression produced after treatment with chlorpromazine, haloperidol, and pimozide was not altered by any of the 6-hydroxydopamine treatments. The findings provide evidence for the view that dopamine depletion plays a major role in the behavioral depressant effects of alpha-methyltyrosine and reserpine, but do not eliminate a role for brain norepinephrine. 38 references. (Author abstract modified)

157144 Kitsikis, Anne; Roberge, Andree G. Laboratoires de Neurobiologie, Faculte de Medecine, Universite Laval, Quebec l0e, P. Q., Canada Behavioral and biochemical effects of alpha-methyltyrosine in cats. **Psychopharmacologia (Berlin). 31(2):143-155, 1973.**

In a study of the behavioral and biochemical effects of alpha-methyltyrosine (AMT) in cats, a single dose of orally administered AMT significantly increased the number of errors made by cats performing a spatial delayed response (DR) task. The same doses of AMT had no such effect on simultaneous visual discrimination (VD) performance. Response latencies were increased in all cats, whichever task was performed. In an attempt to correlate the behavioral and biochemical effects of AMT, dopamine (DA), noradrenaline (NA) and serotonin (5-HT) were assayed in five brain structures. DA was reduced significantly with all doses of AMT used, NA with doses of 125 mg/kg and more. 5-HT increased significantly after 100 and 125mg/kg but remained unchanged after higher doses. Due to the simultaneous action of AMT on DA, NA and 5-HT, the respective roles of these amines are difficult to dissociate. 33 references. (Author abstract)

157145 Izquierdo, Ivan; Nasello, Antonia G. Departamento de Farmacologia, Universidad Nacional de Cordoba, Estafeta 32, Cordoba, Cba., Argentina Effects of cannabidiol and of diphenylhydantoin on the hippocampus and on learning. **Psychopharmacologia (Berlin). 31(2):167-175, 1973.**

The effects of cannabidiol and of diphenylhydantoin on the hippocampus and on learning were studied. Cannabidiol depressed hippocampal

facilitation and posttetanic potentiation of evoked responses in rats, such as had been reported before for diphenylhydantoin. Both diphenylhydantoin and cannabidiol blocked the increase of hippocampal RNA concentration caused by afferent stimulation, and depressed the acquisition of a conditioned avoidance response in rats. Neither drug affected the retention of such response when given by posttrial injection, nor the spontaneous locomotor activity of mice. The effects of both agents are explained by the interference they have been previously shown to produce with the release of potassium ion from the hippocampus during stimulation. Hippocampal facilitation and posttetanic potentiation and the RNA response to stimulation have been shown to be phenomena which depend on this release, and have been attributed a role in learning. 23 references. (Author abstract)

157146 Nakamura, K.; Kuntzman, R.; Maggio, A. C.; Augulis, V.; Conney, A. H. Nippon Roche Research Center, Kamakura, Japan 247 Influence of 6-hydroxydopamine on the effect of morphine on the tail-flick latency. **Psychopharmacologia (Berlin). 31(2):177-189, 1973.**

The influence of 6-hydroxydopamine (6-OHDA) on the effect of morphine on the tail flick latency was studied in rats. One week following the intraventricular administration on successive days of two doses of OHDA to rats, the norepinephrine (NE) and dopamine (DA) contents in the brain were markedly decreased. These treatments potentiated the effect of morphine on the tail flick latency after intraperitioneal or intraventricular administration of morphine. After 6-OHDA had been injected bilaterally into the medial hypothalamic areas at the level of the ventromedial or dorsomedial hypothalamic nuclei, or into the medial forebrain bundle, morphine analgesia was also potentiated and there was marked reduction of the hypothalamic NE levels. The administration bilaterally of 6-OHDA into caudatus - putamen areas reduced morphine analgesia. It is concluded that 6-OHDA induced depletion of NE content in the hypothalamus potentiates morphine analgesia, whereas depletion of DA in the caudate nucleus decreases morphine analgesia. 53 references. (Author abstract)

157147 Khavari, Khalil A.; Risner, Marc E. Department of Psychology, University of Wisconsin-Milwaukee, Milwaukee, WI 53201 Opiate dependence produced by ad libitum drinking of morphine in water, saline, and sucrose vehicles. **Psychopharmacologia (Berlin). 30(4):291-302, 1973.**

In a study of opiate dependence, rats were given ad libitum morphine water, saline morphine, or sucrose morphine as their only source of liquid. Measures of liquid, food, caloric, and morphine intake along with body weight were taken daily, thereby monitoring the effects of morphine ingestion on these indices, and observing the course of dependence over time. To assess the degree of dependence the animals were given a two bottle choice test between the drug solution and the vehicle, following a suitable ingestion period. The results indicated that the rats neglected morphine water and saline morphine in favor of the drug free alternative. Concomitant morphine withdrawal signs (body weight loss, anorexia, adipsia, rhinorrhea, diarrhea, and irritability) were observed, thus indicating the animals were drug dependent. When morphine was given in sucrose solutions, the rats showed a marked preference for drug solution over the vehicle. 12 references. (Author abstract)

157148 Powell, D. A.; Walters, K.; Duncan, S.; Holley, J. R. Neuroscience Laboratory, Veterans Administration Hospital, Columbia, SC 29201 The effects of chlorpromazine and d-amphetamine upon shock-elicited aggression. The effects of chlorpromazine and d-amphetamine upon shock-elicited aggression. **Psychopharmacologia (Berlin). 30(4):303-314, 1973.**

Graded dosages of chlorpromazine hydrochloride and d-amphetamine sulfate were administered to rats and shock elicited fighting frequencies determined. Chlorpromazine interfered with or abolished fighting at appropriate dosages, but d-amphetamine had little or no effect on fighting elicited by grid shock. However, when elicited by subdermal shock, d-amphetamine decreased shock elicited aggression at larger dosages and higher shock intensities, but moderate dosages, combined with moderate shock intensities, increased aggression. The results are discussed within the context of the arousal properties associated with shock elicited aggression. 25 references. (Author abstract)

157149 Jarbe, Torbjorn U. C.; Henriksson, Bengt G. Department of Psychology, University of Uppsala, Slottsgrand 3, S-75220 Uppsala, Sweden Acute effects of two tetrahydrocannabinols (delta9-THC and delta8-THC) on water intake in water deprived rats: implications for behavioral

studies on marihuana compounds. **Psychopharmacologia (Berlin). 30(4):315-322, 1973.**

Water intake was studied in water deprived albino rats at various time intervals after injections of two tetrahydrocannabinols (delta9-THC and delta8-THC) and solvents. The dose levels used were: 1.25, 2.5, and 5.0mg/kg of delta9-THC and 2.5, 5.0, and 10.0mg/kg of delta8-THC. The results show a clear, dose dependent inhibitory effect on water intake as compared to the controls. Reduced intake of food was seen at 1 day postinjection. This effect was, however, significant only for the groups treated with 5.0and 10.0mg/kg of delta8-THC. A decreased bodyweight was also recorded after the drug treatment, especially with delta8-THC. With respect to cannabis induced vocalization the data suggest an increased possibility of its appearance with increasing dosages of THC. 10 references. (Author abstract)

157154 Thut, P. D.; Hruska, R. E.; Kelter, A.; Mizne, J.; Lindell, T. J. Arizona Medical Center, University of Arizona, Tucson, AZ 85724 The effect of alpha-amanitin on passive and active avoidance acquisition in mice. **Psychopharmacologia (Berlin). 30(4):355-368, 1973.**

The effect of alpha-amanitin on passive avoidance acquisition was studied in mice. Mice were given one trial passive avoidance training and retested on the task 4 h later. Mice treated with alpha-amanitin 2 h before training or immediately after training demonstrated a retention deficit when compared to noninjected or saline injected controls. Active avoidance was trained for 1 hr using a Sidman schedule with a drum turning response. Performance during the last 15 min of training was compared to performance in the first 15 min of a retesting session, 4 h after training. Alpha-aminitin, 2 h prior to training reduced the number of responses, percent escapes and percent avoidances. Rotarod and spontaneous motor activity were not affected by alpha-aminitin. 30 references. (Author abstract modified)

157156 McKearney, James W. Worcester Foundation for Experimental Biology, Shrewsbury, MA 01545 Effects of methamphetamine and chlordiazepoxide on schedule-controlled and adjunctive licking in the rat. **Psychopharmacologia (Berlin). 30(4):375-384, 1973.**

The effects of methamphetamine and chlordiazepoxide were studied in a situation in which the same motor response, licking a water filled tube, served as a schedule controlled and as an adjunctive behavior in rats. Ss responded under a 3 min fixed-interval (FI) schedule of food presentation in which the required response was a lick on the tube (schedule controlled); licking also occurred following every food presentation (adjunctive). Adjunctive licking occurred at a high, steady rate, but schedule controlled licking was emitted at a changing rate over time, characteristic of FI schedules. Both drugs had little effect on overall adjunctive licking, except for decreases at the highest doses, but there were changes in the pattern of adjunctive licking. Methamphetamine produced only decreases in schedule controlled licking, but chlordiazepoxide produced dose dependent increases. The magnitude of drug effect on local rates of responding within the FI was related to control rates of responding within the same periods, but there were instances in which the magnitude of effect depended also on whether licking was adjunctive or schedule controlled. 27 references. (Author abstract)

157181 Masur, J. Deparatmento de Bioquimica e Farmacologia, Escola Paulista de Medicina, Rua Botucatu, 862-04023, Sao Paulo, Brazil Labor division of rats under the influence of prolonged administration of (-)delta9-trans-tetrahydrocannabinol. **Pharmacology (Basel). 9(1):35-40, 1973.**

The effects of a prolonged administration of 5mg/kg of (-)delta9-trans-tetrahydrocannabinol (delta9-THC) on a labor division between pairs of rats were studied. Twelve such pairs were previously trained in a modified Skinner box up to the point when one animal of each pair did most of the bar pressing (worker rat) while the partner obtained most of the reward (nonworker). In seven of the 12 pairs tested, the drug administered to worker rats was able to promote an inversion of the hierarchy previously established. Thus, worker rats under delta9-THC action behaved as nonworkers. This inversion was transitory in five pairs and irreversible in the remaining two, even when the drug was discontinued. 10 references. (Author abstract)

157182 Drew, W. G.; Miller, L. L. Department of Psychiatry, University of Kentucky, College of Medicine, Lexington, KY Differential effects of delta9-THC on locomotor behavior in activity-wheel-habituated and nonhabituated rats. **Pharmacology (Basel). 9(1):41-51, 1973.**

The effects of graded doses of delta9-tetrahycrocannabinol (delta9-THC) (0. 0.5, 1.5and 6mg/kg) on the activity of rats habituated and not habituated to activity wheels were evaluated. The 6mg/kg dose significantly decreased the number of revolutions made by rats not previously exposed to the wheel when compared with controls. On the other hand, rats exposed to the wheels for 3 hour periods on 3 consecutive days and then treated on the fourth, exhibited a significant increase in the number of wheel revolutions at the 1.5and 6mg/kg doses when compared with controls. This increase in activity persisted in the 6mg/kg group when a retest was given 24 h later. These results were discussed in terms of the possible action of THC on habituation. 18 references. (Author abstract)

157341 Pert, Agu; Avis, H. H. Edgewood Arsenal, Aberdeen Proving Ground, MD Behavioral effects of antimuscarinic and antinicotinic compounds in rats. Springfield, Va., NTIS, AD-761029, 1973, 26 p. PC:$3.00 MF:95 cents.

Results are reported from a study comparing the effects of scopolamine and mecamylamine in two behavioral paradigms, habituation and fear conditioning, which are sensitive to cholingeric disruption by antimuscarinic compounds. In both paradigms, rats were trained under injections of either scopolamine, methscopolamine, mecamylamine, hexamethonium, or saline. In the habituation paradigm, water deprived rats were given access to their drinking tubes; only the rats trained under scopolamine showed long drinking times, thereby demonstrating the central muscarinic nature of the habituation process. In the fear conditioning paradigm, hungry rats were tested 3 days after training; conditioned suppression was found in all groups except those trained under scopolamine or mecamylamine and tested under saline. It is suggested that the processes underlying this asymmetrical dissocation are not predominantly nicotinic or muscarinic in nature. (Author abstract modified)

157998 Wilson, M. C.; Schuster, C. R. University of Mississippi, School of Pharmacy, Department of Pharmacology, University, MS 38677 The effects of stimulants and depressants on cocaine self-administration behavior in the Rhesus monkey. **Psychopharmacologia (Berlin). 31(4):291-304, 1973.**

The effects of acute intramuscular pretreatment with several dosages of a variety of centrally acting compounds on intravenous cocaine self-administered behavior in eight adult male Rhesus monkeys were ascertained. Pretreatment with morphine and pentobarbital produces no change in this behavior until dosages of 2.0mg/kg and 15.0mg/kg, respectively, are administered which grossly depress grooming, exploratory, and locomotor activity behaviors. Pretreatment with 0.5mg/kg to 4.0mg/kg of d-amphetamine and 2.0mg/kg to 12.0mg/kg of phenmetrazine produces a dose related decrease in cocaine self-administration. Trifluoperazine in dosages of 0.01mg/kg to 0.1mg/kg increases this behavior; higher dosages (0.2mg/kg to 0.4mg/kg) grossly depress behavior. Imipramine in dosages of 10mg/kg to 50mg/kg produces a dose related decrease in cocaine self-administration. Potential mechanisms of these drug behavior and drug - drug interactions are discussed. 17 references. (Author abstract)

158000 Jarbe, Torbjorn U. C.; Henriksson, Bengt G. University of Uppsala, Department of Psychology, Slottsgrand 3, S-75220 Uppsala, Sweden Effects of delta8-THC, and delta9-THC on the acquisition of a discriminative positional habit in rats: the transitions between normal and tetrahydrocannabinol-induced states on reversal learning. **Psychopharmacologia (Berlin). 31(4):321-332, 1973.**

Using a reversal learning paradigm the dissociative effects of two tetrahydrocannabinols (THC) on the acquisition and reversal of a discriminative positional habit in rats were studied. A T-shaped water maze was used. From these experiments it is concluded that learning under the influence of delta8-THC (10mg/kg and 20mg/kg), and delta9-THC (5mg/kg) is state dependent in the rat. 20 references. (Author abstract)

158001 Rohte, Oskar; Muntzing, Jonas. Research Laboratories, AB Leo, Helsingborg, Sweden Effects of reserpine, 6-hydroxydopamine, p-chlorophenylalanine and a combination of these substances on the grooming behaviour of mice. **Psychopharmacologia (Berlin). 31(4):333-342, 1973.**

Reserpine treated mice received injections of 6-hydroxydopamine and p-chlorophenylalanine to determine the effects of these drugs on grooming behavior and body temperature. Reserpine alone markedly reduces grooming behavior and body temperature of mice; however, it was found that the combination injections do not mimic these effects of reserpine. Treatment with the combination injections reduces the transmitter content of

central and peripheral serotonergic and adrenergic neurons to the same extent as treatment with reserpine. It is tentatively suggested that the effect of reserpine on the grooming behavior and body temperature has no relation to the reduction of the transmitter content of central and peripheral serotonergic and adrenergic neurons. 23 references. (Author abstract modified)

158003 de Mello, A. Cesario; Carlini, E. A.; Dressler, Kenneth; Green, Jack Peter; Kang, Sunzong; Margolis, S. Departamento de Fisiologia e Farmacologia, Universidade Federal de Pernambuco, Recife, Brazil Behavioral observations on compounds found in nutmeg. **Psychopharmacologia (Berlin). 31(4):349-363, 1973.**

Central effects of nutmeg compounds in rats and mice were studied, including the development of tolerance and the possibility of cross tolerance between the nutmeg compounds and delta9-tetrahydrocannabinol (delta9-THC) or mescaline. Results indicate that myristicin and elemicin impair the rope climbing and bar pressing performance of rats, and cause catatonia and decreased motor activity in mice. As measured in rope climbing performance, rats developed tolerance to both myristicin and elemicin. There is cross tolerance between myristicin and elemicin; neither shows cross tolerance with either delta9-THC or mescaline. Quantum chemical calculations on the nutmeg compounds for comparison with those of known hallucinogens are also presented. 15 references. (Author abstract modified)

158004 Willinsky, M. D.; de Carolis, A. Scotti; Longo, V. G. Laboratori di Chimica Terapeutica, Istituto Superiore di Sanita, Rome, Italy EEG and behavioral effects of natural, synthetic and biosynthetic cannabinoids. **Psychopharmacologia (Berlin). 31(4):365-374, 1973.**

The electroencephalographic (EEG) and behavioral effects of 7-hydroxy-delta-6-tetrahydrocannabinol (7-OH-delta6-THC) and 7-acetoxy-delta-6-tetrahydrocannabinol acetate (7-Ac-delta6-THC-Ac), plus other available cannabinoids, were compared with delta6-THC in rabbits. It was found that 7-OH-delta6-THC and 7-Ac-delta6-THC-Ac are at least twice as active as delta6-THC in including EEG changes (disruption of theta waves, appearance of spikes and waves, blockade of the arousal reaction) and behavioral alterations (excitation, exophthalmus, mydriasis, corneal arreflexia, ataxia, and swaying). Pretreatment with 1 to 2mg/kg of reserpine does not substantially alter the subjects' response to delta6-THC. Amphetamine 2mg/kg in animals pretreated with 2 to 4mg/kg of delta6-THC reverses in part the depression induced by the delta6-THC. 26 references. (Author abstract modified)

158005 Sepinwall, Jerry; Grodsky, Fred S.; Sullivan, John W.; Cook, Leonard. Department of Pharmacology, Research Division, Hoffmann-LaRoche Inc., Nutley, NJ Effects of propranolol and chlordiazepoxide on conflict behavior in rats. **Psychopharmacologia (Berlin). 31(4):375-382, 1973.**

Propranolol and chlordiazepoxide were tested in rat lever pressing conflict procedures which selectively identify antianxiety compounds. It was found that chlordiazepoxide produces anticonflict effects in such a procedure at doses from 1.25 to 40mg/kg. Propranolol, tested at doses of 2.5to 80mg/kg, does not produce the anticonflict pattern typical of standard antianxiety agents. In a different conflict test, a 40mg/kg dose of propranolol had a slight, but not significant, anticonflict effect. When this dose level is combined with doses of 2.5, 5.0, or 10mg/kg of chlordiazepoxide, the combined treatments produce greater anticonflict effects than do the corresponding individual dosages of chlordiazepoxide. 17 references. (Author abstract modified)

158058 Graham, D. T.; Erickson, C. K. Department of Pharmacology and Toxicology, School of Pharmacy, University of Kansas, Lawrence, KA 66044 Alteration of ethanol-induced CNS depression: ineffectiveness of drugs that modify cholinergic transmission. (Unpublished paper) University of Kansas, Lawrence, Kansas, 1973. 14 p.

The effects of cholinergics on ethanol induced central nervous system depression were studied. Rats trained to perform in a discriminated lever press avoidance situation were given ethanol orally to depress their performance. In an attempt to modify the ethanol induced depression with drugs which would reverse or enhance the reported effects of ethanol in reducing free cerebral acetylcholine, parenteral atropine, intraventricular hemicholinium, and intraventricular acetylcholine were given during ethanol intoxication. None of the drugs significantly altered the ethanol induced behavioral depression, suggesting that the reported reduction in free acetylcholine during ethanol intoxication may merely reflect decreased neuronal activity, rather than being an important

causative factor in ethanol induced central nervous system depression. 11 references. (Author abstract)

158280 Stein, Larry; Wise, C. David; Berger, Barry D. Wyeth Laboratories, P. O. Box 8299, Philadelphia, PA 19101 Antianxiety action of benzodiazepines: decrease in activity of serotonin neurons in the punishment system. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 299-326).**

A study to relate the behavioral actions of benzodiazepines to effects on monoamine turnover in the brain of the rat is reported. It was found that: the antianxiety effects of minor tranquilizers were mimicked by serotonin antagonists or the synthesis inhibitor p-chlorophenylalanine and the response depressant effects on the tranquilizers were mimicked by norepinephrine antagonists; i.v. injections of serotonin suppressed behavior and antagonized the antianxiety action of benzodiazepines. I.V. injections of L-norepinephrine released punished behavior from suppression and antagonized the depressant action of benzodiazepines; intense suppression of behavior was produced by direct application of crystalline carbachol to the dorsal raphe nucleus, a major serotonin cell group in the midbrain. The suppressive effects of raphe stimulation were antagonized by systemic administration of oxazepam. In biochemical experiments, the decrease of norepinephrine turnover induced by oxazepam underwent tolerance but the decrease induced in serotonin turnover was maintained over repeated doses. 50 references. (Author abstract modified)

158281 Cook, Leonard; Davidson, Arnold B. Dept. of Pharmacology, Hoffman-La Roche Inc., Nutley, NJ 07110 Effects of behaviorally active drugs in a conflict-punishment procedure in rats. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 327-345).**

The effects of behaviorally active drugs in a conflict punishment procedure were studied in rats. In a conflict procedure, benzodiazepines, carbamate derivatives, barbiturates, ethanol, benactyzine and trifluoperazine were effective agents in alleviating behavior surpressed by punishment contingencies. Chlorpromazine and haloperidol were ineffective. A rate dependency effect occured after the use of chlordiazepoxide (CDP) in regard to the rate of responding under punishment conditions. The lower the punished response rate the greater the effect of CDP in attenuating the suppressant effects of punishment. The effects of CDP on punished behavior appears general across species and specific techniques. The procedure appears to be a useful technique for identifying psychopharmacological agents and the potency of some compounds in the rat conflict procedure appears to be correlated with clinical potency. 21 references. (Author abstract modified)

158282 Longoni, A.; Mandelli, V.; Pessotti, I. Istituto Carlo per Ricerche Terapeutiche, Via C. Imbonati 24, 20159 Milan, Italy Study of antianxiety effects of drugs in the rat, with a multiple punishment and reward schedule. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 347-354).**

The effects of temazepam (methyloxazepam) in a multiple schedule involving both punishment and reward was examined in the rat. A specific schedule used for the study of antianxiety drugs was obtained by combining the Sidman avoidance test with a positive reinforcement schedule involving both anxiety and attentiveness. The test was sufficient to differentiate between four classes of drugs by testing temazepam, chlorpromazine, phenobarbital and amphetamine. The index can indicate the type of effect exercised by a drug and condenses the various data obtained in a single figure. A standard deviation calculation is included. 1 reference.

158287 Valzelli, Luigi. Dept. of Neuropsychopharmacology, Istituto di Richerche Farmacologiche 'Mario Negri', Via Eritrea 62, 20157 Milan, Italy Activity of benzodiazepines on aggressive behavior in rats and mice. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 405-417).**

The antiaggressive and muscular relaxing activity of benzodiazepines (BDP) was studies in normal and aggressive mice and rats. The antiaggressive efficacy shown by some of the compounds appears unrelated to their muscle relaxing effect. The different response to BDP, as to other psychoactive drugs, of isolated aggressive and normal grouped animals seems to be due to the changes of the biochemical and emotional characteristics of the experimental animals, induced by an alteration of their normal social environment, as reported also for humans. 43 refferences. (Author abstract)

158288 Delgado, Jose M. R. Dept. of Psychiatry, Yale Univ. School of Medicine, 333 Cedar St., New Haven, CT 06510 Antiaggressive effects of chlordiazepoxide. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 419-432).**

Rhesus monkeys with permanently implanted brain electrodes were tested to evaluate the effects of administration of chlordiazepoxide (CDP). The dominant monkey of a pair of free animals in a cage was injected with CDP. No changes were observed in motor, alimentary or social behavior but animals lost fear and aggressive behavior. Under restraint the aggressive reaction elicited by electrical stimulation of Forel's Field was blocked by CDP although the concomitant evoked effect of restlessness was less affected and the threshold for pupillary dilation was not modified. In pairs of monkeys free in a cage the aggressive responses reliably elicited by radio stimulation of specific brain structures were blocked by CDP. Inhibition and motor responses induced by stimulation were not modified by CDP. A technique for the continuous recording of mobility is included. 27 references. (Author abstract modified)

158289 DiMascio, Alberto. Div. of Psychopharmacology, Dept. of Mental Health, Commonwealth of Massachusetts, Boston State Hospital, Boston, MA 02124 The effects of benzodiazepines on aggression: reduced or increased? **In: Grattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 433-440).**

The effects of benzodiazepines (BDP) on the aggression of animals has been studied to develop test models which will predict behavior in humans. The use of different test models, different species or different drug administration schedules raises the question of which model or combination can be utilized for prediction as well as what results should be predicted for humans. Literature reports of the effects of BDP note both a reduction and an increase in hostile aggressive behavior for humans as well as for animals. Treatment with a BDP that may alter the patient's level of aggression and anxiety will have an important effect on his internal feelings and on his interpersonal relationships with others. The social significance of the behavior of individuals who receive the drugs should not be underestimated. 39 references.

158321 Harrigan, Stephen E.; McCarthy, Duncan A.; Wiley, James N. Pharmacology Department, Parke Davis & Company, Ann Arbor, MI 48106 Morphine, propranolol and their interaction in monkeys Morphine, propranolol and their interaction in monkeys trained to self-administer drugs. (Unpublished paper). Rockville, Maryland, NIMH, 1973, 5 p.

The hypothesis that propranolol, a beta-adrenergic blocking agent, can suppress opiate drug-seeking behavior was investigated in juvenile monkeys (Macaca mulatta). Procedure involved injection of the drug prior to a test session wherein nondependent Ss were presented with an opportunity to self-administer morphine. Such self-administration could not be suppressed in the trained nondependent Ss with doses of propranolol of 10 and 100ug/kg iv and of lmg/kg im. The findings therefore offer no support for the hypothesis. 4 references. (Author abstract modified)

158486 Kameyama, Tsutomu; Shigehisa, Tsuyoshi. Department of Chemical Pharmacology, Faculty of Pharmaceutical Sciences, Meijo University, Nagoya, Japan Spontaneous motor activity in the rat as affected by imipramine in relation to initial motor activity and sensory activity. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):62, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effects of an antidepressant on spontaneous motor activity investigated in (innately) active, normal and less active animals, in relation to sensory activity were reported. Two strains of rats, Sprague-Dawley and Wistar, were divided into three groups according to their activity level, as measured by an open field test. Imipramine was administered three times at 24 hr intervals and the rat was tested 30 min, 4, 8 and 12 hr after each administration. Rats with high initial motor activity and high initial sensitivity, i.e.,innately active rats, showed the greatest decrease in motor activity after each administration, as compared with rats with low or medium initial activity, in relation to dose and interval conditions. A dose response curve was obtained at each level of interval, and ED50 was predicted in each type of rat. (Author abstract modified)

158488 Yanaura, Saizo; Mineo, Kousei; Abe, Youichi; Funada, Kazuo; Kimura, Takeshi. Department of Pharmacology, Hoshi College of Pharmacy, Tokyo, Japan Pharmacological studies on the hypothalamus (report 7). Conditioning of hypothalamic behavioral responses and effects of psychotropic drugs. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):64, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, behavioral analysis performed to study the effects of chlorpromazine (CPZ), diazepam (DZP) and methamphetamine (MAPT) on the conditioned responses (CRs) in male rabbits was reported. In a short term, CRs were obtained, and three stages of responses during training could be observed: 1) stage of autonomic and somatic responses (ASR); 2) stage of continuous run (CR); and 3) stage of noncontinuous run (NCR). Drugs were tested in the NCR stage and all were administered orally. CPZ transformed NCR into ASR. MAPT caused marked NCR, and caused further restraint. DZP transformed NCR into CR. It is concluded that NCR is conflict induced behavior, and its behavior would be useful to study one of the emotional actions of psychotropic drugs. (Author abstract modified)

158489 Shimizu, Shin-ichiro. Hokkaido University School of Dentistry, Sapporo, Japan Effects of chlorpromazine and diazepam on operant response duration in rats. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):64, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effects of chlorpromazine and diazepam on operant response duration in rats were reported. Chlorpromazine in doses of 0.5-2.0mg/kg showed a slight increase in response duration (RD) mean and RD variance, and a dose of 4mg/kg induced either a remarkable decrease in response rate or a complete failure of responding during the experimental session. Diazepam of 0.5-1.5mg/kg caused prolonged RDs frequently of more than 10 seconds and resulted in a considerable increment of both RD mean and RD variance. Although both drugs shifted the RD distribution to the longer durations, the difference in variance and the extremely long durations caused by diazepam suggests different sites of action of both drugs on the behavior of rats. (Author abstract modified)

158490 Saito, Hiroshi; Takagi, Keijiro. Faculty of Pharmaceutical Sciences, University of Tokyo, Tokyo, Japan Effect of Ginsenoside-Rgl, a saponin of panax ginseng root, on learning and memory in rats. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):65, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the influence of ginsenoside-Rgl(GRgl) on learning and memory in rats using Y-maze and pole climbing tests was reported. GRgl shortened the running time of conditioned rats which had learned right - left discrimination with success over 90%, but had no influences on the latency and the error. GRgl accelerated the rate of acquisition for right - left discrimination learning in unconditioned rats and the reverse discrimination learning in conditioned rats. GRgl had no influences on avoidance escape response and response latency of conditioned rats which could climb the pole only after the conditioning stimulus with success over 90%. GRgl had no influence on the rate of acquisition for conditioned avoidance learning, but led to prolongation of retention for a conditioned avoidance response. GRgl accelerated the rate of acquisition for discrimination learning in both unconditioned and conditioned rats which had learned conditioned avoidance response. (Author abstract)

158491 Kamioka, Toshiharu; Nakayama, Isao; Takagi, Hiromu. Central Research Laboratories, Sankyo Co., Ltd., Tokyo, Japan Effects of CS-386 and cloxazolam on conditioned behavior of paired monkeys. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):65, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effect of CS-386 and cloxazolam on the attenuation of socially induced suppression and aggression in cynomolgus monkeys was reported. Diazepam was used as control drug. Two pairs of monkeys, instigator monkeys and attacker monkeys, were located face to face with the distance just beyond the reach of each other. Sessions consisted of repeats of safety (during which the instigators were rewarded with food on the schedule of VR-20) and agonistic (during which the instigators were rewarded with food on the schedule of VR-5 but simultaneously the attackers were stimulated electrically on the tail) periods. The results showed that the suppressed lever responses were attenuated by the three drugs but these drugs failed to show inhibitory effect on the threat behavior of the attackers. (Author abstract)

158492 Yamada, Katsushi; Ogawa, Nobuya; Gomita, Yutaka; Fujiwara, Michihiro; Ueki, Showa. Department of Pharmacology, Faculty of Pharmaceutical Sciences, Kyushu University, Fukuoka, Japan State-dependent learning (dissociation of learning) with hallucinogens in rats. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):66, 1973.**

At the 46th meeting of the Japanese Pharmacological Society the effect of delta-9-

tetrahydrocannabinol (THC), mescaline, LSD-25 and methamphetamine on the dissociation of learning of passive and/or active avoidance in rats was reported. THC or mescaline administered before training significantly impaired retention, or dissociated learning, of passive avoidance response. High doses of THC and mescaline showed a marked retention deficit from a drugged to a nondrugged state in the drug - saline group. THC and mescaline, seemed to produce a partial and an asymmetrical dissociation of learning. LSD-25 and methamphetamine produced no retention deficit between drugged and nondrugged states. Rats trained for conditioned avoidance responding in a two compartment shuttle box after injection of THC showed an impairment of the acquisition, as compared with the control group. It is concluded that THC and mescaline produced state dependent learning while LSD-25 and methamphetamine did not. (Author abstract)

158493 Ishikawa, Koichi; Akiyama, Masanori; Taniguchi, Kaoru; Saito, Shoji. Department of Pharmacology, School of Medicine, Nihon University, Tokyo, Japan New apparatus for learning experiment and its application - the effect of chlorpromazine, reserpine and amphetamine. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):66, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effect of subcutaneously injected chlorpromazine (Cpz), reserpine (R) and amphetamine (A) on the learning ability of rats using a new apparatus was reported. Five groups of rats received training for 1 hour every day, and at the end of training each group was subcutaneously injected with 10mg/kg of Cpz, 1mg/kg of Cpz, 0.1mg/kg of R, 0.5mg/kg of A and physiological saline as control, respectively. In the control group, the rate of correct behaviour (the ratio of the correct response to the total response) reached 75% at the end of 6 days. On the contrary, these rates were 55% for the Cpz 10mg/kg group, 58% for the Cpz 1mg/kg group, 62% for the R group and 63% for A group, which suggested that learning ability was lowered in these groups as a consequence of drug administration. (Author abstract)

158494 Razzak, Abdul, Fujiwara, Michihiro; Ogawa, Nobuya; Ueki, Showa. Department of Pharmacology, Faculty of Pharmaceutical Sciences, Kyushu University, Fukuoka, Japan Characteristics of abnormal behavior induced by 2-(2,6-dichlorophenylamino)-2-imidazoline (ST 155) in mice. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):67, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, abnormal behaviors induced by ST 155 in mice were reported. ST 155 induced exophthalmus, horripilation and intense tremor. In higher doses the biting behavior and hyperactivity were also induced, in addition to these symptoms. The biting was markedly increased by L-DOPA, d-methamphetamine, atropine and biperiden, and slightly increased by PCPA, while it was markedly decreased by chlorpromazine, haloperidol and reserpine, and slightly decreased by diazepam, d-alpha-methyltyosine, physostigmine, 5-HTP, diphenhydramine and reserpine. The tremor was markedly increased by L-DOPA and physostigmine, while it was markedly decreased by atropine, diazepam, imipramine and diphenhydramine. A combination of nialamide and L-DOPA caused the most marked increase in both the biting and tremor, while major tranquilizers, on the contrary, caused a marked decrease in both of them. (Author abstract)

158495 Yamamoto, Hiromi; Sano, Mitsuaki; Sato, Takashi; Kawamura, Koji; Iwasaki, Morio; Wakamatsu, Yoshiko; Kobayashi, Masafumi; Sato, Mikio. Department of Pharmacology, Nihon University School of Dentistry, Tokyo, Japan Effects of L-dopa and reserpine on Ach consumption in brain mitochondria and aggressiveness of mice stressed by long-term isolation. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):68, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effect of reserpine and L-DOPA on the relation between aggressiveness and brain Ach consumption ratio of isolated and aggregated mice was reported. Degree in aggressiveness of L-DOPA mice was enhanced in comparison with NaCl or reserpine mice. Aggressive behavior in reserpine mice was more provoked than in NaCl mice in many weeks during the period but not in the final weeks. Extreme enhancement of aggressiveness observed in L-DOPA mice was inhibited by reserpine. The ratio of reserpine mice was enhanced in comparison with NaCl or L-DOPA mice. The ratio of L-DOPA mice was rather lower than in NaCl mice. The ratio of mice treated in combination with reserpine and L-DOPA was extremely lower. (Author abstract modified)

158496 Sano, Mitsuaki; Yamamoto, Hiromi; Sato, Takashi; Kawamura, Koji; Iwasaki, Morio; Wakamatsu, Yoshiko; Kobayashi, Masafumi; Sato, Mikio. Department of Pharmacology, Nihon University School of Dentistry, Tokyo, Japan Effects of L-dopa and DDC on ACH consumption in brain mitochondria and aggressiveness of mice stressed by long-term isolation. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):68, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effect of DDC and L-DOPA on the relation between aggressiveness and its brain Ach consumption ratio of isolated and aggregated mice was reported. Aggressive behavior in DDC mice was more provoked than in NaCl mice at many weeks for the period, although depressed at the final weeks. Aggressive degree in L-DOPA mice was enhanced in comparison with NaCl or DDC mice. Extreme enhancement of aggressiveness observed in L-DOPA mice was inhibited by DDC. The ratio of DDC mice was enhanced in comparison with NaCl mice. The ratio of L-DOPA was rather lower than in NaCl mice. The high ratio of DDC mice was inhibited by L-DOPA. (Author abstract)

158498 Tadano, Takeshi; Kisara, Kensuke. Department of Chemical Pharmacology, Tohoku College of Pharmacy, Sendai, Japan Effects of LiCl on aggressive behaviour and brain amines in mice. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):69, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effects of LiCl on aggressive behavior and brain amines in mice were reported. The content of 5-hydroxytryptamine, noradrenaline, dopamine, spermine and spermidine were measured by spectrofluorophotometer and spectrophotometer. In mice treated with LiCl each brain amine was not changed significantly as compared with that of control group. Spermine increased in aggressive mice induced by electroshock (ES) as compared with that of normal mice. LiCl increased spermine in ES mice. Spermidine increased in aggressive mice induced by isolation (IS-mice) as compared with that of normal mice, while each amine was not changed in mice which were not aggressive regardless of isolation for 3-4 weeks. LiCl further increased spermidine in IS mice. LiCl inhibited biting, attacking and vocalization induced by electroshock by isolation. (Author abstract)

158504 Ikeda, Hitoshi; Take, Yomei; Y Itoh, Yumiko; Nagawa, Tuji. Biological Research Laboratories, Central Research Division, Takeda Chemical Industries, Ltd., Osaka, Japan Hypnotic effect of 8-chloro-6-phenyl-4H-S-triazolo (4,3-a) (1,4) benzodiazepine (D-4OTA) in experimentally induced insomnia and brain serotonin in rats. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):77, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, hypnotic effect of 8-chloro-6-phenyl-4H-S-triazolo (4,3-a) (1,4) benzediazepine (D-4OTA) a new potent tranquilizer, was evaluated by continuous recording of EEGs, EMG and eye movements (EM) for 8-hr day time in rats with chronically implanted electrodes. D-4OTA produced an increase in slow wave sleep (SWS) by 13.8% and a decrease in PS by 3.6%. Hyposomnia was clearly induced 24 hrs after p-chlorphenylalanine (p-CPA). In this state, the same dose of D-4OTA recovered SWS to almost normal level and paradoxical sleep (PS) to some extent. In normal rats, brain serotonin level was increased by D-4OTA by 34% in brain stem without change in telencephalon, while brain tryptophan level was unaffected significantly. In p-CPA pretreated rats showing the reduced serotonin level of 28% of normal telencephalic value and of 15% of normal brain stem value, D-4OTA elevated them to 43-49% and 30-32% of normal level. Phenobarbital showed a hypnotic effect without affecting the brain serotonin in p-CPA treated rats. The results suggest that an increase of serotonin by D-4OTA may be responsible for its hypnotic effect. (Author abstract)

158508 Kaneko, Takeru; Yamatsu, Kiyomi; Ohtake, Shinzaburo. Pharmacological Research Laboratories, Eisai Co., Ltd., Tokyo, Japan Effects of trazodone on sleep-wakefulness cycle in rats. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):81, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the effect of trazodone (TZD) on sleep - wakefulness cycle during day time in rats implanted with electrodes chronically was reported. TZD exerted no effects on this cycle at 2.5mg/kg but reduced paradoxical sleep (PS) episodes in numbers at about 7 hours without a significant change of slow wave sleep (SWS) time. Following the administration of 160mg/kg, TZD reduced SWS time, accompanied by a decrease in amplitude of the hippocampal EEG and suppressed PS completely for more than 10

hours. Imipramine supressed PS completely with a dose comparable to that of antireserpine, but TZD had no antireserpine activity at a selective PS suppressing dose. (Author abstract)

158772 Fulginiti, S.; Orsingher, O. A. Departamento de Farmacologia, Facultad de Ciencias Quimicas, Universidad Nacional de Cordoba, Estafeta 32, Cordoba, Argentina Further evidence in support of a common adrenergic mechanism for the facilitatory action on learning of amphetamine and nicotine in rats. **Journal of Pharmacy and Pharmacology (London). 25(7):580-581, 1973.**

The effects of pretreatment with alpha-methyl-p-tyrosine (alpha-MT) at doses that themselves had no effect, on the facilitatory action of amphetamine and nicotine on learning and capacity to acquire a conditioned response in rats submitted to cold, were investigated. Such pretreatment markedly depressed the drug facilitated learning as well as acquisition of the conditioned response. In addition, the fact that inhibition of monoamine oxidase by nialamide produced a significant increase in the number of CRs as compared with saline control groups, and that it counteracted the depressive effects shown by interaction of the alpha-MT with amphetamine, nicotine, or cold gave additional pharmacological evidence to support the hypothesis of a role of catecholamines in the learning process. Findings support the hypothesis that the effect of amphetamine and nicotine may be mediated by a common mechanism of adrenergic nature. 15 references. (Author abstract modified)

159366 Evans, Hugh L.; Ghiselli, William B.; Patton, Robert A. Department of Radiation Biology and Biophysics, University of Rochester School of Medicine and Dentistry, Rochester, NY 14642 Diurnal rhythm in behavioral effects of methamphetamine, p-chloromethamphetamine and scopolamine. **Journal of Pharmacology and Experimental Therapuetics. 186(1):10-17, 1973.**

Diurnal rhythm in behavioral effects of methamphetamine, p-chloromethamphetamine and scopolamine were examined in rats. Ss were housed and tested under a controlled cycle of 12 hours light 12 hours dark. Effects of drugs on free operant avoidance and fixed-interval performance varied from enhancement to depression, depending on the stage of the light - dark cycle at which the drug was administered. Methamphetamine produced the greatest increase in lever pressing when administered during the dark period, regardless of whether responding was maintained by food or by electric shock. This effect appeared to be independent of diurnal differences in baseline response rates. Methamphetamine increased locomotor activity at least as much during the light as during the dark, which suggests a dissociation between effects on operant behavior and effects on locomotor activity. Alpha-methyltyrosine was a more effective antagonist of methamphetamine effects in the light than in the dark. Unlike methamphetamine, p-chloromethamphetamine was more effective in increasing responding during the light period. Results are discussed with reference to reported diurnal rhythms in behavioral toxicity and in brain amines. 18 references. (Author abstract)

159367 Goldberg, Steven R. Laboratory of Psychobiology, Department of Psychiatry, Harvard Medical School, 25 Shattuck St., Boston, MA 02115 Comparable behavior maintained under fixed-ratio and second-order schedules of food presentation, cocaine injection or d-amphetamine injection in the squirrel monkey. **Journal of Pharmacology and Experimental Therapeutics. 186(1);18-30, 1973.**

Comparable behavior maintained under fixed-ratio (FR) and second order schedules of food presentation, cocaine injection or d-amphetamine injection was examined in the squirrel monkey. Under a FR schedule with optimal doses of cocaine or d-amphetamine and with optimal amounts of food, mean response rate was over 1 per second. Decreasing the cocaine or d-amphetamine dose resulted in irregular responding at reduced rates. Discontinuing food presentation had the same effect. Increasing the cocaine or d-amphetamine dose resulted in a high response rate at the beginning of each session, followed by decreasing response rates as the session progressed; increasing the amount of food had the same effect. Monkeys were then studied under a second order fixed-interval schedule of FR components. Mean response rates of about 1 per second were maintained consistently as the dose of cocaine injected or the amount of food presented was systematically varied over a wide range. Thus, striking parallels between drug-maintained responding and food maintained responding occured over a wide range of parameter values under both FR and second order schedules. 30 references. (Author abstract modified)

159391 Hendler, Nelson; Cullen, Joseph. The Johns Hopkins University, School of Medicine, Department of Psychiatry, Baltimore, MD The effects of hypothalamic implants of aldosterone, angiotensin II, carbacol, norepinephrine, and NaCl on water and NaCl intake in normal and adrenalectomized rats. **Conditional Reflex. 8(3):164, 1973.**

In the proceedings of the 13th meeting of the Pavlovian Society, the effects of the implantation through chronic cannulae of various chemicals into the anterior pre-optic area of the hypothalamus of 15 rats on a two bottle test comparing water preference against 0.3M or 0.5M saline were discussed. Crystalline aldosterone, angiotensin II and carbacol implants significantly increased water intake over a 1 hour period, with no change in saline preference. After this experiment, the rats were adrenalectomized. Taste preferences comparing water versus 0.3M saline were studied after 18 hours of fluid and food deprivation. Aldosterone and norepinephrine inhibited salt intake over a 1 hour period while NaCl implants did not. This suggests a central receptor for aldosterone, functioning as part of a negative feedback loop. (Author abstract modified)

159568 Alves, Claudio Norberto; Carlini, Elisaldo Araujo. Departmento de Psicobiologia, Escola Paulista de Medicina, Rua Botucatu, 862 - 04023 Sao Paulo, Brasil Effects of acute and chronic administration of Cannabis sativa extract on the mouse-killing behavior of rats. **Life Sciences. 13(1):75-85, 1973.**

The muricidal behavior of spontaneous killer rats was blocked after the first injections of an extract of Cannabis sativa. On the contrary, in rats which did not show this behavior spontaneously the chronic administration of the extract induced mouse - killing behavior; this effect of marihuana was potentiated by starvation which by itself, did not interfere with the behavior of the nonkiller rats. Results tend to support the view that cannabis has a dual action. Suppression of muricidal behavior may occur due to the acute depressant effects of marihuana. Tolerance develops under chronic administration. 32 references. (Author abstract modified)

160201 Mattila, Mauri J.; Jounela, Antti J. Department of Pharmacology, University of Helsinki, Helsinki, Finland Effect of p-chlorophenylalanine on the interaction between phenelzine and pethidine in conscious rabbits. **Biochemical Pharmacology (Oxford). 22(13):1674-1676, 1973.**

The effect of p-chlorophenylalanine (pCPA) on the interaction between phenelzine and pethidine in conscious rabbits was examined. Pethidine alone had no effects on circulation, temperature or behavior. Pretreatment with phenelzine made the animals alert and increased 5-hydroxytryptophan (5-HTP) levels in the hypothalamus by 120%. This treatment greatly modified the effect of pethidine which raised systolic pressure and caused bradycardia. Pretreatment of Ss with pCPA made the animals restless and hungry. After phenelzine the animals became more alert; pethidine sedated the animals. No significant behavioral effect was seen with 5-hydroxytrypamine (5-HTP) plus pCPA neither did phenelzine provoke any remarkable excitation. It is concluded that, although pCPA abolishes the toxic interaction between phenelzine and pethidine, the restoring of brain 5-HT levels by administration of 5-HTP does not restore toxic interaction. 13 references.

160583 Norton, Stata. Department of Pharmacology, University of Kansas Medical Center, Kansas City, KS 66103 Amphetamine as a model for hyperactivity in the rat. **Physiology & Behavior. 11(2):181-186, 1973.**

Exploratory behavior of saline and amphetamine injected rats was analyzed using time lapse photography. Three models are proposed for the expected effects of drugs causing hyperactivity in rats. The conclusions which are reached from the analysis are that control behavior of rats under the condition employed shows a high degree of patterning and stability and that at moderately low doses amphetamine causes dose related changes in frequency of certain behavioral acts and a shortening of the duration of an act, once it is initiated. These two actions can be assumed to encompass the effect of amphetamine described as behavioral stimulation or hyperactivity. In addition, amphetamine causes increased randomization of initiation of behavior acts. This disruption of normal behavior sequences is not detected by most methods of analysis of hyperactive behavior but has been shown here to be a dose related phenomenon accompanying the other drug induced changes. 6 references. (Author abstract)

160641 Bhagat, B.; Wheeler, Nancy. Department of Physiology, St. Louis University School of

Medicine, St. Louis, MO 63104 Effect of amphetamine on the swimming endurance of rats. **Neuropharmacology (Oxford). 12(7):711-713, 1973.**

The effect of amphetamine on the swimming endurance of rats was studied. Low doses of amphetamine were ineffective in influencing the swimming time of rats to exhaustion. Higher doses of amphetamine however, increased significantly the swimming time; (+)- and (-)-isomers of amphetamine were equipotent in enhancing the swimming time. Amphetamine also caused improvement in the swimming endurance but its effect was slightly less than that elicited by either of the two isomers. 18 references. (Author abstract modified)

160747 Vardaris, Richard M. Kent State University, Kent, OH Neuronal and social factors in the abuse of marihuana. Progress report, NIMH Grant MH-20558, 1973, 4 p.

The effects of chronic marihuana intoxication gauged by ethogram testing of the behavior of paired rats in an open field situation were studied. Many dose related effects were discovered, notably a reduction of aggression, the effect increasing over protracted periods of drug administration. Low dosages appear effective in eliciting behavioral change.

160854 Saari, Matti; Pappas, Bruce A. Psychology Department, Canleton University, Ottawa, Ontario, K1S 5B6, Canada Neonatal 6-hydroxydopamine sympathectomy reduces foot shock-induced suppression of water-licking in normotensive and hypertensive rats. **Nature (London). 244(136):181-183, 1973.**

The effects of neonatal injections of 6-hydroxydopamine (6-OHDA) on foot shock induced suppression of water licking in normotensive and hypertensive rats were studied. Twenty newborn rats and 20 male offspring of 26th generation spontaneously hypertensive rats were used. It was found that neonatal 6-OHDA sympathectomy reduced both the immediate suppression of water licking caused by painful foot shock and the suppression of the initiation of licking on the day following shock in both normotensive and hypertensive rats that had been deprived of water for 23.5h. 10 references.

160896 Forbes, William Butler. University of Houston The effect of focally administered drugs on self-stimulation of the ventral tegmental area in rats. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-15724 HC$10.00 MF$4.00 65 p.**

The hypothesis advanced by Stein and Wise that self-stimulation had as its neural substrate system of noradrenergic fibers originating in the ventral tegmental area and synapsing in the lateral hypothalamus, septal area and amygdala was tested in rats. Self-stimulation was measured using a shuttle task, and bipolar stimulating electrodes were placed in the ventral tegmental area. A single cannula was implanted in one of the structures containing synapses of the putative fiber system. Alpha-methyl-meta-tyrosine, imipramine and tranylcypromine were given, and the effects of drug administration on self-stimulation were determined. None of the drugs had an effect on self-stimulation. Failure to demonstrate the hypothesized effects of drugs using these procedures was interpreted as indicating that previously reported effects of these drugs when administered systemically were due to activity in parts of the CNS other than those structures involved herein. (Journal abstract modified)

160910 McKim, William Arthur. University of Western Ontario, London, Ontario, Canada The effects of cholinergic drugs on operant behaviour of the rat. (Ph.D. dissertation). **Dissertation Abstracts International. Ottawa, Canada, National Library of Canada at Ottawa, 1972.**

Experiments were conducted to test effects of cholinergic drugs on operant behavior of rats, along with observations that anticholinesterase drugs have effects on behavior opposite to those of anticholinergic drugs and that these two agents will antagonize each other's effects on behavior when administered together. In Experiment one it was demonstrated that a fairly constant relationship existed for most Ss between the control baserate of responding and percentage change induced in that baserate by scopolamine. Wide range doses of physostigmine given in experiment two did not produce a consistent effect other than blocking of responding at high dosage. Further, physostigmine doses which had been ineffective alone antagonized the effects of scopolamine found in experiment one. Finally, suppression produced by discriminated extinction, conditioned emotional response, and punishment were not affected differentially by scopolamine. (Journal abstract modified)

161119 Fujimori, Masamoto; Himwich, Harold E. Illinois State Psychiatric Institute, Chicago, IL 60608 Delta9;tetrahydrocannabinol and the sleep-wakefulness cycle in rabbits. **Physiology & Behavior. 11(3):291-295, 1973.**

The effects of 0.5and of 1.0mg/kg of intravenously administered delta9-tetrahydrocannabinol (delta9-THC) on the sleep - wakefulness cycle were studied in six freely moving rabbits with chronically implanted electrodes. On 3 consecutive days 5hr polygraphic recordings were made in each animal; the first record was begun immediately following administration of the drug, the second and third were made 24 and 48hr later. At both dose levels, delta9-THC evoked biphasic effects on the first day; an initial phase of extremely low amplitude fast activity of the alert state was followed by a period of predominantly slow wave sleep. During the initial alert phase spike discharges appeared in the motor cortex and hippocampus and behavioral alterations characterized chiefly by loss of motor coordination were observed. A decrease in the number of REM sleep episodes was mainly responsible for a significant reduction in the total time spent in REM sleep on the first day. On the second day the percent time of REM sleep was still below the control value although the difference was statistically insignificant, but by the third day it had returned to the control level. 23 references. (Author abstract)

161123 Ungerer, Arielle. Laboratoire de Psychophysiologie, Universite Louis Pasteur 7, rue de l'Universite, 67000 Strasbourg, France /Nature and amplitude of the effects of acetoxycycloheximide on the retention of an instrumental /Nature and amplitude of the effects of acetoxycycloheximide on the retention of an instrumental task in mice./ Nature et mpleur des effets de l'acetoxycycloheximicle sur la retention d'un apprentissage instrumental chez la souris. **Physiology & Behavior. 11(3):323-327, 1973.**

Nature and amplitude of the effects of acetoxycycloheximide (AXM) on the retention of an instrumental task in mice were studied. Mice injected subcutaneously with AXM 60min or less after acquisition of a nondiscriminative instrumental task, show low levels of lever press responding, when tested 6 days after the treatment. AXM injected 180 min after acquisition has no effect whatsoever on the performance. The analysis of various parameters: 1) the number of nonreinforced responses (A) preceding the first reinforced response (AR), and 2) the latency of the first reinforced response, shows that only the animals treated with AXM during the first 3min following acquisition differ significantly from the control animals -- they seem to have forgotton the significance of the lever. On the contrary, the low levels of responding observed in the animals treated 30-60min after acquisition does not seem to be due to a nonretention of the significance of the lever. 17 references. (Author abstract)

161125 Crabtree, J. Michael; Moyer, K. E. Department of Psychology, Washington and Jefferson College, Washington, PA 15301 Sex differences in fighting and defense induced in rats by shock and d-amphetamine during morphine abstinence. **Physiology & Behavior. 11(3):337-343, 1973.**

Sex differences in fighting and defense induced in rats by shock and d-amphetamine during morphine abstinence are reported. Male and female rats were injected with morphine while a control group received water injections. Four days following the final morphone injection, the animals received d-amphetamine and then were tested for their reaction to a stuffed leather glove. Drugged animals, while not showing a higher incidence of attack, did show increased escape tendencies when compared to controls. Both drugged and control animals were then shocked in the presence of either a same or different sexed conspecific. Nine measures of aggressive behavior were recorded from the pairs. Factor analysis produced two orthogonal aggressive factors: 1) indicative of defensive threat behavior; and 2) relating to actual fighting. Male - male pairs under morphine abstinence plus d-amphetamine scored significantly higher than the other groups on the fighting factor while drugged male - female pairs scored significantly higher on the defensive threat factor. Although the fighting exhibited was essentially restricted to male pairs under the drugged condition, evidence is presented suggesting that the agonistic behavior observed is not the species typical intermale aggression. 26 references. (Author abstract)

161343 Lal, Harbans. Dept. of Pharmacology, University of Rhode Island, Kingston, RI 02881 Drug-induced aggression. Research Report, NIMH Grant MH-20115, 1972, 13 p.

An animal model in which aggression is induced by injections of drugs was explored with random bred male Swiss albino mice. Male or female mice

pretreated with levo- or dextro-amphetamine (2-8mg/kg) exhibited aggressive behaviors (rearing, vocalizing, attacks, and biting) upon the injection of dihydroxyphenylalanine (DL-DOPA, 100-800mg/kg; L-DOPA, 50-200mg/kg). For optimum action, a combination of dextro amphetamine (4mg/kg) and DOPA (DL-DOPA, 400mg/kg or L-DOPA, 100mg/kg) was necessary. Unlike DOPA, alpha-methyl-DOPA was ineffective in the combination. Unlike amphetamine, cholramphetamine, hydroxyamphetamine, desipramine, and benztropine were also ineffective. Haloperidol (0.625) or morphine (25mg/kg) when given 5 minutes prior to amphetamine blocked amphetamine DOPA aggression. Dextroamphetamine in combination with DOPA caused brain dopamine levels higher and more persistent than those resulting from DOPA alone. It is suggested that the aggression was due to hyperactivity of central dopaminergic systems either directly or by a psychotomimetic metabolite. (Author abstract modified)

161718 Joseph, James A.; Powell, D. A. Neuroscience Laboratory, VA Hospital, Columbia, SC Peripheral chemical sympathectomy and learning. **Newsletter for Research in Mental Health and Behavioral Sciences. 15(3):32-36, 1973.**

The effects of elimination of the sympathetic influence on the acquisition of somatic and autonomic response systems with 6-hydroxydopamine (6-OHDA) were tested, using 12 albino New Zealand rabbits. There seems to be a diminution in discriminative coreo-retinal potential and heart rate responses in the drugged animals that shows very little tendency to change for as long as 15 days after injection, supporting previous findings. Animals administered 6-OHDA are more active in the open field than Ss injected with a vehicle solution. An alternative explanation is that the drugged animals showed more general somatic activity in response to the test tones. Another alternative is that catecholamine decrease retards the acquisition of these responses. 9 references.

161962 Dubinsky, B.; Robichaud, R. C.; Goldberg, M. E. Dept. of Pharmacodynamics, Warner-Lambert Research Institute, Morris Plains, NJ 07950 Effects of (-)delta9-trans-tetrahydrocannabinol and its selectivity in several models of aggressive behavior. **Pharmacology (Basel). 9(4):204-316, 1973.**

The acute effects of (-)delta9-tetrahydrocannabinol (THC) were studied in several models of aggressive behavior. Chlorpromazine was twice as active as THC in blocking isolation induced aggression in the mouse, and the ED50 values were 2 and 4mg/kg respectively. Doses of the THC which produced taming did not impair rotarod performance, but chlorpromazine caused motor depression at doses below those which attenuated fighting. Inhibition of foot shock induced aggression in mice and rats by THC was considered to be related to its analgesic and motor depressant effects. There was an increase in the viciousness of septal rats. Imipramine produced blockade of muricidal aggression in rats at doses below those impairing motor function. THC did not block predatory aggression elicited by electrical stimulation of the hypothalamus in cats, but similar doses elevated the threshold current for stimulus bound hissing beyond the control range in other cats. 28 references. (Author abstract modified)

162274 Cole, J. M.; Pieper, W. A. Yerkes Regional Primate Research Center, Emory University, Atlanta, GA 30322 The effects of N,N-dimethyltryptamine on operant behavior in squirrel monkeys. **Psychopharmacologia (Berlin). 29(2):107-112, 1973.**

Five squirrel monkeys were trained to stable levels of performance on fixed ratio schedules of food reinforcement. N,N-dimethyltryptamine (DMT) was then injected intramuscularly prior to fixed ratio testing and the behavioral effects were observed. The determination of dose - response relationships indicated that latencies to initiate responding were an increasing function of the dose, while overall response rates, as measured from the first to the last response of the session were unaffected. When a dose of DMT which initially disrupted operant behavior was administered once daily for 36 to 38 consecutive days, tolerance was not observed to occur. 8 references. (Author abstract)

162276 Bryant, Rodney C.; Petty, Frederick; Byrne, William L. Brain Research Institute and Department of Biochemistry, University of Tennessee Medical Units, Memphis, TN 38105 Effects of piracetam (SKF 38462) on acquisition, retention, and activity in the goldfish. **Psychopharmacologia (Berlin). 29(2):121-130, 1973.**

The effects of piracetam on acquisition, retention, and activity in the goldfish were studied. Goldfish treated by immersion with the drug

piracetam in their home tanks obtained higher mean levels of correct active dark avoidance responding than nondrug treated controls; the difference did not emerge until the last 2 days of the 5 days of training. In another experiment, fish immersed in the drug solution before a single session of group training for dark avoidance scored more correct responses during retention testing than fish exposed to only water before training. However, no difference in correct retention responding was found between fish exposed, during the interval between training and testing, to the drug solution and fish exposed only to water. General activity during retention testing was unaffected with respect to pretraining immersion in water or drug solution; however, immersion in the drug solution between training and testing resulted in lower levels of general activity during retention testing. 19 references. (Author abstract)

162277 Geyer, Mark A.; Segal, David S. Department of Psychiatry, University of California at San Diego, La Jolla, CA Differential effects of reserpine and alpha-methyl-p-tyrosine on norepinephrine and dopamine Differential effects of reserpine and alpha-methyl-p-tyrosine on norepinephrine and dopamine induced behavioral activity. **Psychopharmacologia (Berlin). 29(2):131-140, 1973.**

The locomotor activity of rats was monitored during the intraventricular infusion of either dopamine or norepinephrine after intraperitoneal pretreatment with saline, reserpine, or acute and chronic alpha-methyl-p-tyrosine. While the hyperactivity produced by norepinephrine was potentiated 24 hours after reserpine, the response to dopamine was reduced by reserpine. Chronic, but not acute, alpha-methyl-p-tyrosine enhanced the effect of norepinephrine without altering the dopamine - induced activity. These results indicate: (1) dopamine-induced hyperactivity is due to its conversion to norepinephrine; and (2) prolonged depletion of central catecholamines may result in postsynaptic recepter supersensitivity. 28 references. (Author abstract)

162325 Foree, D. D.; Moretz, F. H.; McMillan, D. E. Department of Pharmacology, University of North Carolina, Chapel Hill, NC 27514 Drugs and punished responding II: d-amphetamine-induced increases in punished responding. **Journal of Experimental Analysis of Behavior. 20(2):291-300, 1973.**

The effects of d-amphetamine on punished responding were studied in two experiments. In experiment 1, pigeons responded under a multiple fixed-ratio (FR) 30 response fixed-interval (FI) 5 min schedule of food presentation with 60 sec limited holds in both components. Each response was punished with electric shock. In experiment 2, another group responded under a multiple FI 5 min FI 5 min schedule of food presentation with 40 sec limited holds. Each response was punished with shock during one component, and every thirtieth response was punished in the other component. D-amphetamine increased overall rates of punished responding only rarely under any of the punishment conditions, although response rates within the FI when rates were low were increased with low shock intensity (experiment 1), or when responses produced shock intermittently (experiment 2). The data suggest that the effects of d-amphetamine on punished responding depend on the control rate of responding, the punishment intensity, punishement frequency, and the schedule of food presentation. 14 references. (Author abstract modified)

162530 Griffiths, Roland R.; Thompson, Travis. Johns Hopkins University School of Medicine, Baltimore, MD Effects of chlorpromazine and pentobarbital on pattern and number of responses in extinction. **Psychological Reports. 33(1):323-334, 1973.**

The effects of chlorpromazine and pentobarbital on pattern and number of responses in extinction were studied in a series of experiments in which rats were trained and subsequently extinguished under different conditions of drug administration. High doses of chlorpromzine (5mg/kg) or pentobarbital (20mg/kg) were administered during the first extinction session and the dose was progressively reduced to zero over 10 successive sessions. Extinction was continued until all Ss had consistently near zero responding. When compared to saline controls, chlorpromazine had no effect on total extinction responding. Ss receiving both drugs had erratic runs of responding in extinction, whereas Ss receiving saline showed a normal extinction pattern. Ss receiving pentobarbital during both training and extinction had more total extinction responding than Ss receiving only pentobarbital in extinction. 12 references. (Author abstract)

162920 Burov, Yu. V.; Speranskaya, N. P. Laboratoriya farmakologii nervnoy sistemy In-

stituta farmakologii AMN SSSR, Moskva /The effect of psychotropic substances on one of the forms of intraspecies relations./ Vliyaniye psikhotropnykh veshchestv na odnu iz form vnutrividovykh otnosheniy. **Farmakologiya i toksikologiya (Moskva). 36(3):266-268, 1973.**

The effect of psychotropic drugs on the avoidance reaction of one rat with pain stimulation applied to another rat was investigated. Tranquilizers, meprobamate, chlordiazepoxide and benactyzine, when used in much smaller doses than with other procedures, alerted the avoidance of one rat after pain stimulation had been applied to another one. Neuroleptics of the phenothiazine series, chlorpromazine and trifluoroperazine, arrested the avoidance reaction when used in doses which inhibit the conditioned defensive reflex. Neuroleptics and butyrophenone derivatives have little depressing effect on the described form of intraspecies relations. 9 references.

162959 Lu, Tzu-Chiau, Ho, Beng T.; McIsaac, W. M. Texas Research Institute of Mental Sciences, 1300 Moursund Avenue, Houston, TX 77025 Effects of repeated administration of DL-amphetamine and methamphetamine on tolerance to hyperactivity. **Experientia (Basel). 28(12):1461, 1972.**

The effects of repeated administration of DL-amphetamine and methamphetamine on tolerance to hyperactivity were investigated in rats. Results indicate that DL-amphetamine does not produce tolerance to hyperactivity. However, the lack of tolerance to motor activity in animals treated with methamphetamine is not in agreement with previous works. 5 references.

163020 Driscoll, P.; Battig, K. Institut fur Verhaltenswissenschaft-ETH Abteilung Verhaltensbiologie, Turnerstrasse 1, CH-8006 Zurich, Switzerland The effect of small doses of mecamylamine on shuttlebox behavior in the guinea-pig. **Experientia (Basel). 29(8):991-993, 1973.**

The effects of mecamylamine on shuttlebox behavior in the guinea pig was studied. The data show that mecamylamine, at doses of about 1.0mg/kg and above, exerted a siginficantly depressant effect on the shuttlebox behavior of trained guinea pigs. It is suggested that the exact nature of the nicotine mecamylamine interaction, as well as the comparative importance of mecamylamine itself in this interaction, are both questions which should be answered. 17 references.

163119 Handley, George William. University of Tennessee The effects of methylphenidate (Ritalin) upon performance in the successive discrimination reversal situation. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-20010 HC$10.00 MF$4.00 63 p.**

The effects of several dose levels of methylphenidate (Ritalin) upon the acquisition and established performance of a discrete trial successive tone/light discrimination reversal (SDR) situation, in which stimuli were presented successively, were investigated in five experiments. Dose levels were used that had no detrimental effect upon reinforced responding. Two studies determined the effects of the drug upon acquisition of the SDR situation, results of which showed that 2mg/kg doses enhanced performance on all reversals; 4 and 8mg/kg had short-term enhancement effects. In a discrete trial situation, 2, 4, or 8mg/kg doses had little effect upon responding, while 12mg/kg attenuated reinforced responding. Study of the effects of the drug upon SDR performance showed that 1, 2, and 4mg/kg doses enhanced established performance, and 6 and 8mg/kg attenuated it. (Journal abstract modified)

163132 Ritzmann, Ronald Fred. Northern Illinois University The effects of atropine and eserine on spatial discrimination in C57BL/10 mice. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-20562 HC$10.00 MF$4.00 88 p.**

The possible use of various drugs in investigating the neuronal basis of learning was investigated in the effects of atropine and eserine on spatial discrimination in C57BL/10 mice. The drugs were administered at low and high doses while controls received isotonic saline orally. The acquisition and reversal of the two choice spatial discrimination habit for food reinforcement were determined in a T-maze, with drug effects on dark maze exploration and changes in spontaneous locomotor activity determined at the two dose levels. Additional Ss were tested for drug effects on AChE activity and on NE concentration in the brain. The drugs produced significant and opposite effects on the acquisition of the spatial position in the T-maze. No significant effects on exploration or on motor activity were noted. Significant decreases, not only in AChE but also in brain NE

concentration, were noted for high doses of eserine, but no change occurred with atropine. (Journal abstract modified)

163161 Redmond, D.E., Jr.; Hinrichs, R.L.; Maas, J.W.; Kling, A. Building 10-3S-229, National Inst. of Mental Health, Bethesda, MD 20014 Behavior of free-ranging macaques after intraventricular 6-hydroxydopamine. **Science. 181(4106):1256-1258, 1973.**

The effect of intraventricular 6-hydroxydopamine on the behavior of macaques (Macaca mulatta) was observed in a free ranging colony on Guayacan Island, Puerto Rico. Those injected were significantly different in their social interactions, initiatives, facial expressions, and postures than sham treated and field controls. This study extends the known effects of 6-hydroxydopamine and catecholamine depletion to the social interactions of a higher primate species under free ranging conditions. 15 references. (Author abstract modified)

163450 Geyer, Mark Allen. University of California, San Diego Dissociation of some behavioral effects of intraventricular dopamine and norepinephrine. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-10341 HC$10.00 MF$4.00 76 p.**

Direct comparisons are provided of the locomotor activity and attack behavior effects of dopamine (DA) and norepinephrine (NE) intraventricular infusion in rats. Locomotor activity was monitored electronically during the infusion of graded doses of DA and NE. While both DA and NE produced hyperactivity, NE was found to be considerably more potent. Pretreatment with imipramine, which blocks neuronal uptake of catecholamines, prevented the activation induced by infused DA without affecting the response to NE. The alleged DA receptor blocker haloperidol did not differentially affect the responses to DA and NE. The results indicate that locomotor activity is more directly related to brain NE, while dopaminergic pathways may be involved in attack behavior. (Journal abstract modified)

163696 Weiner, Myron; Olson, Jack W. Department of Pharmacology, University of Southern California School of Pharmacy, Los Angeles, CA 90007 The behavioral effects of dibutyryl cyclic AMP in mice. **Life Sciences (Oxford). 12(8):345-356, 11973.**

The effects of dibutyryl cyclic adenosine 3',5'-monophosphate (DBcAMP), 25mg/kg on the locomotor activity of mice are presented. DBcAMP administered intraperitoneally 25 minutes prior to testing produced a significant decrease in spontaneous locomotor activity (SLMA) to 58% of control and in exploratory behavior to 64% of control, but failed to alter rotarod performance of mice. DBcAMP did not decrease activity when mice were pretreated with the nucleotide 24 hours prior to its subsequent administration. The results of time - response studies of DBcAMP and SLMA showed that the effects were present as early as 2 minutes after administration and persisted for approximately 90 minutes. Dose - response experiments showed a significant decrease in SLMA with 10mg/kg and an 86% decrease with 75mg/kg. The results suggest that DBcAMP acts centrally to alter several behavioral patterns in mice and that tolerance rapidly develops to its effects. 35 references. (Journal abstract modified)

163750 Davis, T. R. A.; Kensler, C. J. Life Sciences Division, Arthur D. Little, Inc., Cambridge, MA 02140 Comparison of behavioral effects of nicotine, d-amphetamine, caffeine and dimethylheptyl tetrahydrocannabinol in squirrel monkeys. **Psychopharmacologia (Berlin). 32(1):51-65, 1973.**

The effects of nicotine, d-amphetamine, caffeine and dimethylheptyl tetrahydrocannabinol (DMHP) were examined in squirrel monkeys using three standard behavioral procedures: fixed-interval, fixed-ratio and continuous shock avoidance, and two procedures developed to test neuromuscular performance: physical activity and steadiness. Nicotine increased responding in the first half of fixed-intervals and in continuous avoidance; d-amphetamine increased responding under all procedures except physical activity; caffeine increased responding under all procedures except fixed-ratio and DMHP increased responding under all procedures except continuous avoidance, where responding was reduced. Nicotine and d-amphetamine caused disruption in the physical activity procedure. Findings are consistent with interpretation that it is the temporal pattern of the responding under the different procedures that is the dominant factor in determining the behavioral effects of the drugs. 20 references. (Author abstract modified)

163752 Syme, Lesley A.; Syme, G. J. Ruakura Animal Research Station, Hamilton, New Zealand Effects of chlorpromazine and methamphetamine on sociability in rats. **Psychopharmacologia (Berlin). 32(1):81-84, 1973.**

Using a time sample photographic method three measures of sociability were tested in rats administered chlorpromazine (3mg/kg). Rats administered chlorpromazine were more sociable than those treated with methamphetamine or isotonic saline. Saline animals were more sociable than amphetamine treated subjects on two measures. Findings indicate that variables influencing sociability results may include social conditions in the cage, postinjection and test environments, and the measure employed. 9 references. (Author abstract modified)

163753 Oglesby, M. W.; Rosenberg, J.; Winter, J. C. 122 Capen Hall, State University of New York at Buffalo, Buffalo, NY 14214 Behavioral and biochemical effects of chronic administration of bromide in the rat. **Psychopharmacologia (Berlin). 32(1):85-92, 1973.**

Bromide, a sedative in low doses and a psychotogen in high doses in man, was tested for behavioral and biochemical effects in the rat. The kinetics of bromide excretion following chronic administration were studied in the rat to determine drug regimens necessary to achieve stable, nonlethal levels of blood bromide. When administered daily to animals performing on a variable interval schedule of positive reinforcement (VI 44), a low dose of bromide increased rates of responding while a high dose depressed response rates. Following withdrawl of the drug after 6 weeks of administration, response rates returned to previously determined control levels. Chlorpromazine failed to antagonize bromide induced rate depression. No change in the concentration of norepinephrine or 5-hydroxytryptamine was seen with any dose of bromide studied. 13 references. (Author abstract)

163758 Desmedt, L. K. C.; Van Bruggen, J. A. A.; Niemegeers, C. J. E. Janssen Pharmaceutica, Research Laboratory, B-2340 Beerse, Belgium The effects of pimozide on dominant-subordinate behaviour in Wistar rats competing for food. **Psychopharmacologia (Berlin). 31(1):49-62, 1973.**

In a test on the effects of pimozide, a highly potent and long-acting neuroleptic, a new procedure for studying dominant - subordinate (D-S) relationship in pairs of rats, competing for food, is described. The experimental design has the advantage of being stable for a long time without spontaneous D-S reversals. Treating the dominant rat of a pair a significant weakness of the initially strong D-S relationship was demonstrated with a dose of 0.16mg/kg, while 0.63mg/kg of pimozide resulted in a nearly complete D-S reversal. Significant changes of D-S relationship were not observed when the subordinate rat was treated with 0.08, 0.16 or 0.31mg/kg of pimozide. The results point at a normalizing effect of pimozide on social interaction through inhibition of aggressive behavior. 19 references. (Author abstract modified)

163759 Taylor, M.; Goudie, A. J.; Williams, Amanda. Department of Psychology, University College of North Wales, Bangor, Wales The effects of chronic fenfluramine administration on behaviour and body weight. **Psychopharmacologia (Berlin). 31(1):63-76, 1973.**

Two experiments were conducted on the effects of chronic administration of fenfluramine on behavior and body weight in rats. The effects of 28 day chronic administration were studied. A dose related rapid weight loss was observed in treated subjects, with development of tolerance to the effects of the drug on body weight after 14 days administration. The incidence of some behavioral patterns varied significantly between observation days, although observations of control subjects were never significantly different. Confirmation of the development of behavioral tolerance was obtained. Abnormal, stereotyped behavior induced by a very high dose of fenfluramine showed a much lower incidence in subjects that had received fenfluramine for 30 days than in saline controls. Attention is drawn to the difficulties inherent in describing psychotropic agents as either sedatives or stimulants. It is suggested that although fenfluramine is generally considered to be a sedative, stimulant effects may be observed after chronic administration of anorexic doses. Similarities between the effects of high doses of fenfluramine and amphetamine are described. 45 references. (Author abstract modified)

163760 Thiebot, M. H.; Soubrie, P.; Simon, P.; Boissier, J. R. Unite de Recherches de Neuropsychopharmacologie de l'INSERM 2, rue d'Alesia, F-75014 Paris, France /Dissociation of two components of rat behavior by psychotropic

drugs: utilization for studying anxiolytic drugs./ Dissociation de deux composantes du comportement chez le rat sous l'effet de psychotropes: Application a l'etude des anxiolytiques. **Psychopharmacologia (Berlin). 31(1):77-90, 1973.**

The staircase test was used to study the effects of various psychotropic drugs on two components of exploratory behavior in the rat: the scores of rearing and the number of steps climbed during 3 minutes were recorded. Neuroleptic induced a parallel decrease of both, while benzodiazepines, meprobamate, amobarbitone and ethanol decreased the rearing at doses which left the steps climbed unchanged. At high doses, there was a parallel decrease of both parameters. Amphetamine, at lower doses, increased the rearing score alone. The comparison of the studied psychotropic drug effects with those of two muscle relaxants suggests that either the observed benzodiazepine effects were only partly due to their myorelaxant action, or, that both myorelaxants have some anxiolytic action. The effect of amphetamine at low doses is viewed as a demonstration of increased anxiety. 15 references. (Author abstract modified)

163761 Wright, Dennis C.; Chute, Douglas L. Department of Psychology and Space Sciences, Research Center, University of Missouri-Columbia, Research Park, Columbia, MO 65201 State dependent learning produced by post trial intrathoracic administration of sodium pentobarbital. **Psychopharmacologia (Berlin). 31(1):91-94, 1973.**

State dependent learning produced by posttrial intrathoracic administration of sodium pentobarbital in rats is reported. All rats showed increased latencies on the retention trial but marked differences in retention test latencies indicate that there was significantly more retention of training when drug states were the same during the memory storage interval and the memory retrieval interval. Intrathoracic injection proved to be a practical substitute for intravenous injection in assuring rapid onset of drug effect. 6 references. (Author abstract modified)

163766 Yokel, Robert A.; Pickens, Roy. Box 392 Mayo, University of Minnesota, Minneapolis, MN 55455 Self-administration of optical isomers of amphetamine and methylamphetamine by rats. **Journal of Pharmacology and Experimental Therapeutics. 187(1):27-33, 1973.**

The self-administration of optical isomers of amphetamine and methylamphetamine by rats was studied. When self-administration was limited to 6 hr/day sessions, increases in dose produced decreases in response rate and relatively slight increases in hourly drug intake. Responding was maintained by lower doses of the d than of tthe l-isomer of both amphetamine and methylamphetamine. Responding resulted in 2.38 to 2.98 times more l than d-amphetamine and 4.31 times more l than d-methylamphetamine being self-administered per hour. At similar molar doses, 1.75 times more l-methylamphetamine than l-amphetamine was self-administered but no difference between d-amphetamine and d-methylamphetamine was found over the range of doses studied. When rats were allowed to self-administer drugs 24 hrs/day at doses that produced equal response rates, qualitative effects were similar with both isomers of each drug: alternating periods of responding and no responding, weight loss, body irritation and typically death within 2 weeks. With onset of self-administration, responding maintained by food and water decreased while activity increased. 37 references. (Author abstract modified)

163769 Villarreal, J. E.; Guzman, M.; Smith, C. B. Department of Pharmacology, University of Michigan, Ann Arbor, MI 48104 A comparison of the effects of d-amphetamine and morphine upon the locomotor activity of mice treated with drugs which alter brain catecholamine content. **Journal of Pharmacology and Experimental Therapeutics. 187(1):1-7, 1973.**

A comparison of the effects of d-amphetamine and morphine upon the locomotor activity of mice treated with drugs which alter brain catecholamine content is presented. Morphine administration increased markedly the locomotor activity of mice. Pretreatment of mice with reserpine or with alpha-methyl-p-tyrosine decreased markedly the activity increasing effects of morphine. Pretreatment with pargyline caused a slight shift to the left in the dose response curve of morphine. In contrast, pretreatment of mice with either reserpine or pargyline caused no significant change in the activity increasing effects of d-amphetamine. Pretreatment with alpha-methyl-p-tyrosine caused a shift to the right in the dose-response curve of d-amphetamine but did not decrease the maximum response obtained. The results suggest that certain effects of morphine are mediated by the release of catecholamines

from adrenergic neurons in the brain. The evidence also suggests that the activity increasing effects of morphine are mediated by mechanisms different from those which mediate the effects of d-amphetamine. 13 references. (Author abstract modified)

163771 Schechter, Martin D. Department of Pharmacology, University of Melbourne, Parkville, Victoria 3052, Australia Transfer of state-dependent control of discriminative behaviour between subcutaneously and intraventricularly administered nicotine and saline. **Psychopharmacologia (Berlin). 32(4):327-335, 1973.**

The transfer of state dependent control of discriminative behavior between subcutaneously and intraventricularly administered nicotine and saline was examined in rats. Ss were trained to choose between the side compartments of a three chambered shock escape apparatus according to whether they were injected with nicotine or saline. Half of the rats learned to discriminate between 0.4mg/kg nicotine and saline administered subcutaneously, whereas the other half learned to differentiate between 644ng nicotine or saline administered intraventricularly. The rats trained by the subcutaneous route of administration had the ability to discriminate between nicotine and saline given intraventricularly and the rats trained by the intraventricular route could differentiate when the two substances were injected subcutaneously. This transfer of state dependent control of discriminative behavior between subcutaneously and intraventricularly administered nicotine and saline is presented as evidence for the central origin of the nicotine produced interoceptive cue. 15 references. (Author abstract)

163774 Taylor, Maxwell. Department of Psychology, University College of North Wales, Bangor, Wales. The effects of fenfluramine on fixed ratio responding. **Psychopharmacologia (Berlin). 32(4):351-358, 1973.**

Two experiments on the effects of fenfluramine on fixed-ratio (FR) responding are reported. In Experiment one, two rats were trained on an FR 10 schedule of reinforcement. After more than 30 h training, intraperitoneal injection of saline, 2, 4 and 8mg/kg fenfluramine were given. Disruption of the initial stages of responding was noted after 2 and 4mg/kg, with complete disruption of responding in one animal after 8mg/kg administration. In Experiment two, two rats trained on an FR 30 schedule of reinforcement received chronic 15 days administration of 4mg/kg fenfluramine. Disruption of responding was noted after the first administration. The degree of disruption lessened by the fifteenth day of administration. 20 references. (Author abstract)

163778 Neto, J. Palermo; Carvalho, F. V. Department of Pharmacology and Therapeutics, Faculty of Veterinary Medicine, University of Sao Paulo, Sao Paulo, Brazil The effects of chronic cannabis treatment on the aggressive behavior and brain 5-hydroxytryptamine levels of rats with different temperaments. **Psychopharmacologia (Berlin). 32(4):383-392, 1973.**

The effects of cannabis extract on aggressive behavior and whole and regional brain 5-hydroxytryptamine (5-HT) levels were studied in rats selected for differences in temperament. The results indicated that rats with a high index of defecation (HI) appeared to be more susceptible to the cannabis elicited aggressive behavior than the animals with a low index of defecation (LI). After chronic treatment with cannabis the 5-HT whole brain levels remained unchanged in the nonaggressive rats of both LI and HI group whereas the 5-HT levels fell down to about 50% of normal levels in the whole brain of aggressive animals. The greatest regional reductions in 5-HT were found in the cerebral hemispheres, midbrain and hypothalamus, although 5-HT levels remained unchanged in cerebellum and medulla oblongata. The evidence suggests that temperament may be an important factor involved in the ability of cannabis to induce aggressive behavior in starved rats, and that some basic brain mechanism probably differs in HI and LI rats. This difference could be responsible for the small aggressive response observed in LI rats after chronic treatment with cannabis. 44 references. (Author abstract modified)

164545 Griffiths, Roland Redmond. University of Minnesota, Minneapolis, MN The effects of pentobarbital on extinction responding in rats. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-10560 HC$10.00 MF$4.00 80 p.**

Seven experiments determining whether the extinction procedure of behavior elimination in rats is improved by combining it with pentobarbital treatment are discussed. Results indicate that total extinction responding is reduced by drug treatment. Both a fading dose schedule and a schedule

of abrupt discontinuation of pentobarbital were equally effective in reducing extinction responding; however, the absolute number of sessions of drug treatment by either schedule has no effect on total extinction responding. It was observed that the pattern of extinction responding is markedly different under the two dose schedules. The fading procedure reliably produces little or no responding on the first session with response bursting thereafter. The abrupt discontinuation procedure produces complete response suppression during initial drug sessions followed by substantial responding on the first saline session with progressively fewer responses over the next sessions. (Journal abstract modified)

164715 McKinney, William T., Jr.; Young, Laurens D.; Suomi, Stephen J.; Davis, John M. Department of Psychiatry and Primate Laboratory, University of Wisconsin School of Medicine, 1300 University Ave., Madison, WI 53706 Chlorpromazine treatment of disturbed monkeys. **Archives of General Psychiatry. 29(4):490-494, 1973.**

The ability of chlorpromazine to modify abnormal behaviors in disturbed rhesus monkeys was studied. Four rhesus monkeys which were subjected to partial social isolation during the first 11 months of life and which had consistently exhibited patterns of grossly abnormal behavior during the 1 1/2 years prior to the current study were treated with chlorpromazine. Three of the four subjects showed significant decreases in their self-disturbance behaviors on 7.5mg/day of chlorpromazine given as the liquid concentrate by nasogastric intubation. The fourth subject showed no change. Plasma chlorpromazine levels confirmed absorption of the drug in all subjects. 24 references. (Author abstract)

165647 Ogawa, Haruyoshi; Tadokoro, Sakutaro. Behavior Research Institute, School of Medicine, Gunma University, Maebashi, Japan Behavioral effects of diazepam, pentobarbital, methamphetamine and their combinations on DRL-20sec for water. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):63, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the behavioral actions of diazepam, pentobarbital and methamphetamine which possess different pharmacological spectra in rats were reported. Rats were deprived of drinking water and trained on the differential reinforcement of low rate schedule of water presentation. The number of total respondings increased with decrease of the effective response after diazepam. A similar effect to diazepam was observed after pentobarbital. Effects of methamphetamine were almost the same as those of the other two drugs, but any suppression of respondings was not revealed even at the higher doses. Thus the dose response curve was shown most linearly among all the drugs. Synergistic effects of each drug were also observed when methamphetamine was combined with diazepam or pentobarbital. It is concluded that these three drugs possess similar properties in behavioral analysis. (Author abstract modified)

166001 Consroe, Paul F.; Man, Doreen P.; Chin, Lincoln; Picchioni, Albert L. Department of Pharmacology and Toxicology, College of Pharmacy, University of Arizona, Tucson, AZ 85721 Reduction of audiogenic seizure by delta8- and delta9-tetrahydrocannabinols. **Journal of Pharmacy and Pharmacology (London). 25(9):764-765, 1973.**

Evidence that delta8-tetrahydrocannabinol (delta8-THC) has antiseizure activity against sound induced convulsions was presented. Additional data on the anticonvulsant property of delta9-THC is also included and a comparison has been made of the relative anticonvulsive potency of the two compounds. Female rats were used as subjects and injected with identical doses of the compounds. Results showed the anticonvulsant activity to be closely related to dosage; the anticonvulsant potencies for the two cannabinols were similar in these procedures. 6 references.

166067 Bridger, Wagner H.; Mandel, Irwin J.; Stoff, David M. Department of Psychiatry, Albert Einstein College of Medicine, Bronx, NY Mescaline: no tolerance to excitatory effects. **Biological Psychiatry. 7(2):129-138, 1973.**

In three experiments using male hooded rats the issue of tolerance to the effects of mescaline on shuttle avoidance was examined. In Experiment 1 animals demonstrated an excitatory effect on an acquisition test after 4 days of chronic administration of 100mg/kg. In Experiment 2, 12.5mg/kg was excitatory on acquisition after acute administration, while an even more enhanced excitatory effect was present after 4 days of prior chronic drug treatment. In Experiment 3 an acute injection of 100mg/kg was inhibitory to the continued performance of previously learned shuttle avoidance, while chronic administration after each of the prior 4 days of training produced not only tolerance to the inhibitory effect, independent of

learning under the drug, but an excitatory effect. These results are compatible with the endogenous hallucinogen model of psychosis and are discussed with respect to the reports of tolerance to psychedelic and lack of tolerance to psychotomimetic effects of hallucinogens in humans. 20 references. (Author abstract)

166165 Cappell, Howard; Le Blanc, A. E. Addiction Research Foundation, 33 Russell Street, Toronto 179, Ontario, Canada Punishment of saccharin drinking by amphetamine in rats and its reversal by chlordiazepoxide. **Journal of Comparative & Physiological Psychology. 85(1):97-104, 1973.**

Punishment of saccharin drinking by amphetamine in rats and its reversal by chlordiazepoxide is discussed. In a conditioned taste aversion paradigm, it was shown that doses of d-amphetamine which are intravenously self-administered by rats may punish saccharin drinking. In Experiment 1, single trial dose related aversion was demonstrated. The aversion was not antagonized by chlorpromazine. Experiment 2 demonstrated dose related acquisition of taste aversion with repeated administration of very low amphetamine doses. In Experiment 3, drug induced saccharin aversion was reversed by chlordiazepoxide; this action paralleled the action of chlordiazepoxide in numerous other aversive conditioning situations. A fourth experiment ruled out the possibility that depression of saccharin drinking was due to a direct pharmacological action of the drug and not to learned saccharin avoidance. The results indicate that the reinforcing action of amphetamine depends on the response with which its effects are correlated. 20 references. (Author abstract)

166692 Bobillier, Pierre; Froment, Jean-Louis; Seguin, Solange; Jouvet, Michel. Departement de Medecine Experimentale, Universite Claude Bernard, 8, avenue Rockefeller, Lyon 8e, France /Effects of p-chlorophenylalanine and 5-hydroxytryptophan on sleep - wakefulness and the central metabolism of monoamines and proteins in the cat./ Effets de la p-chlorophenylalanine et du 5-hydroxytryptophane sur le sommeil et le metabolisme central des monoamines et des proteines chez le chat. **Biochemical Pharmacology (Oxford). 22(23):3077-3090, 1973.**

The state of sleep - wakefulness and the central metabolism of monoamines and proteins were studied 6 hr after i.p. injection of DL-5-hydroxytryptophan into cats pretreated with p-chlorophenylalanine. Insomnia and a marked diminution of the endogenous levels of 5-hydroxytryptamine (5HT) and 5-hydroxyindoleacetic acid without remarkable variation of NA were induced in the telencephalon of cats treated with p-chlorophenylalanine only. Injection of 5-hydroxytryptophan restored a normal sleep pattern and at the same time the metabolism of 5-HT increased significantly. p-Chlorophenylalanine and 5-hydroxytryptophan did not alter the total in vivo cerebral protein synthesis measured 4 hr after the intraventricular injection of a 14C-amino acid mixture. Polyacrylamide gel electrophoresis of soluble proteins from that region suggested the presence of an acidic protein fraction of high molecular weight, the synthesis of which could be stimulated during sleep. The possible relationship between amines, proteins and sleep are discussed. 61 references. (Author abstract)

166728 Cameron, Oliver G.; Appel, James B. Department of Psychology, the Pritzker School of Medicine, Chicago, IL 60637 A behavioral and pharmacological analysis of some discriminable properties of d-LSD in rats. **Psychopharmacologia (Berlin). 33(2):117-134, 1973.**

d-LSD was employed as a discriminative stimulus in a two-lever, free-choice procedure involving water reinforcement with rats. The results indicated that doses of 0.02-0.04mg/kg of d-LSD were at the threshold level of discriminability from no drug (saline); 0.08mg/kg was clearly discriminable from no drug; the same dose of d-LSD (0.08mg/kg) was also discriminable from d-amphetamine; and subjects could probably discriminate, albeit weakly, between d-LSD and two other hallucinogens, mescaline and psilocybin. When a variety of drugs which were not used during training were tested during subsequent extinction sessions, it was found that most nonhallucinogenic drugs elicited responding predominantly on the nondrug lever; when hallucinogenic drugs were tested, preferences in general depended on dosage of the test drugs. Manipulations which might be expected to desensitize subjects (e.g.,pretreatment with chlorpromazine, or with d-LSD itself in an acute tolerance regimen) had no effect. 23 references. (Author abstract modified)

166787 Hastings, Lloyd; Stutz, Robert M. Department of Psychology, University of Cincinnati, Cincinnati, OH 45220 The effect of alpha- and beta-adrenergic antagonists on the self-stimulation phenomenon. **Life Sciences (Oxford). 13(9):1253-1259, 1973.**

In an attempt to evaluate the possible existence of alpha and/or beta adrenergic components of the self-stimulation reward system, rats were injected with chlorpromazine hydrochloride, phentolamine hydrochloride and propranolol hydrochloride. The alpha-adrenergic antogonists (chlorpromazine and phentolamine) inhibited self-stimulation but the beta-adrenergic blocker (propranolol) was without significant effect. Self-stimulation is apparently mediated by the alpha-adrenergic system. 18 references. (Author abstract)

167040 Robichaud, R. C.; Hefner, M. A.; Anderson, J. E.; Goldberg, M. E. Department of Pharmacodynamics, Warner-Lambert Research Institute, 170 Tabor Road, Morris Plains, NJ 07950 Effects of delta9-tetrahydrocannabinol (THC) on several rodent learning paradigms. **Pharmacology (Switzerland). 10(1):1-11, 1973.**

Delta9-tetrahydrocannabinol (THC) was studied for its effects on the learning behavior of rats and mice in several experimental models of learning. It was found that in the pit avoidance procedure in the mouse, acutely administered doses significantly reduced the number of avoidances, whereas, in another active avoidance test, a drug state dependent enhancement of avoidance behavior acquisition was seen. Rats shocked under saline and retested under THC had longer latencies than controls; rats shocked and retested under THC exhibited a significantly greater degree of suppression than controls. Results of several avoidance, suppression, and latency experiments showed that THC does not appear to generally impair acquisition behavior. 15 references. (Author abstract modified)

167237 Everett, Peter Ben. University of North Carolina at Chapel Hill The differentiation of operant and adjunctive behaviors. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-16468 HC$10.00 MF$4.00 52 p.**

Schedule induced polydipsia in the rat with and without d-amphetamine was used as a model of adjunctive responding to study differences and/or similarities between operant and polydipsic licking. The access to the water tube was varied within the inter pellet interval of a fixed item 2 min schedule of food reinforcement, and periods of high reinforcement probability were signaled by a prefood stimulus. Polydipsic licking had a fixed, postreinforcement temporal location and was not correlated with periods of low reinforcement probability. Various doses of d-amphetamine were given in another experiment which displayed both operant and polydipsic licking on the same fixed-interval schedule. The drug suppressed the high rate operant responding, but polydipsic licking was not suppressed relative to operant licking of a similar rate. It was concluded that adjunctive responding was differentiated from operant behavior by observing their different temporal locations within the interreinforcement interval and their different actions under d-amphetamine. (Journal abstract modified)

05 TOXICOLOGY AND SIDE EFFECTS

150398 Koizumi, Junzo; Shiraishi, Hiroyasu. Dept. of Neuropsychiatry, School of Medicine, Chiba University, Chiba City, Japan Synaptic alterations in the rabbit hypothalamus following long term administration of haloperidol. **Folia Psychiatrica et Neurologica Japonica (Tokyo). 26(4):319-326, 1972.**

The tuberal regions of the hypothalamus of rabbits were examined under the electron microscope following long-term administration of haloperidol with special consideration of synaptic changes in their hypothalamus, and were compared with normal materials. Intramuscular injections of haloperidol (2mg/kg/day) were given over a 3 to 5-month period. Various types of synaptic changes were observed: densely accumulated synaptic vesicles in the clear matrix of some boutons, tubular profiles in some axon terminals and mitochondrial accumulation in some boutons. Those animals showed neuroleptic and extrapyramidal symptoms throughout the period. These various types of synaptic alterations are interpreted as the early degenerative changes induced by the long-term administration of haloperidol. 39 references. (Author abstract)

152027 Koizumi, Junzo; Shiraishi, Hiroyasu. Department of Neuropsychiatry, School of Medicine, Chiba University, Chiba, Japan Synaptic changes in the rabbit pallidum following long-term haloperidol administration. **Folia Psychiatrica et Neurologica Japonica (Tokyo). 27(1):51-57, 1973.**

Following long-term administration of haloperidol, the brains of rabbits were examined by electron microscopy, with special reference to the synaptic changes in the globus pallidus, and compared with the normal materials. After 3 to 5 months of intramuscular injections of haloperidol

(2mg/kg/day), irregular windings of the cytoplasmic membranes of the axon terminals were observed in the axodendritic and axosomatic synapses in the globus pallidus. The animals showed neuroleptic and extrapyramidal symptoms throughout the period. These synaptic changes are interpreted as reactive changes induced by the long-term administration of haloperidol. 15 references. (Author abstract)

152028 Koizumi, Junzo; Shiraishi, Hiroyasu. Department of Neuropsychiatry, School of Medicine, Chiba University, Chiba, Japan Synaptic alterations in the hypothalamus of the rabbit following long-term chlorpromazine administration. **Folia Psychiatrica et Neurologica Japonica (Tokyo). 27(1):59-67, 1973.**

Following long-term administration of chlorpromazine, the brains of rabbits were examined by electron microscopy, with special reference to the synaptic alterations in the hypothalamus, and compared with the normal materials. After 2 months of intramuscular injections of chlorpromazine (15mg/kg/day), fine granular or fibrillar materials appeared in the postsynaptic regions of some dendrites in the tuber cinereum of the hypothalamus. The postsynaptic regions of some dendrites were extremely shrunken and surrounded by astroglia. The animals showed neuroleptic and extrapyramidal symptoms throughout the period. These synaptic findings are interpreted as degenerative alterations induced by the long-term administration of chlorpromazine. 46 references. (Author abstract)

152436 Taira, M.; Kojima, K.; Takeuchi, H. Institute for Neurobiology, Okayama University Medical School, Japan A comparative study of the action of actinomycin D and actinomycinic acid on the central nervous system when injected into the cerebrospinal fluid of higher animals. **Epilepsia (Amsterdam). 13:649-662, 1972.**

The action of actinomycin D and of actinomycinic acid on the central nervous system of higher animals was compared. When actinomycin D, which interacts with DNA, was injected in a dosage of 0.025mg into the cerebrospinal fluid of dogs, 33 of 42 animals developed generalized convulsions after a latency of several days. In the preconvulsive period, the dogs presented tremors, myoclonic jerks and locomotor movements. In the convulsive period, generalized tonic - clonic convulsions and locomotor motions occurred repeatedly. After the repeated convulsions the animals died. This substance is highly toxic. When actinomycinic acid, which is similar in molecular structure to actinomycin D but never interacts with DNA, was injected into the cerebrospinal fluid of dogs, the animals showed no abnormal behavior, and all survived. When actinomycin D was injected into the cerebrospinal fluid, convulsive electrical activity was produced in the cat. After the injection of actinomycinic acid into the cerebrospinal fluid, the cats showed no electroencephalographic abnormalities and always survived. 30 references.

152438 Schneiderman, Barbara; Isaacson, Robert L.; Van Hartesveldt, Carol. University of Florida, Gainesville, FL The effects of spreading depression on penicillin-induced epileptiform activity in rat brain. **Epilepsia (Amsterdam). 13:675-697, 1972.**

The interaction between KCl induced cortical spreading depression and penicillin induced cortical epileptiform activity was studied in the rat brain. In one experimental procedure, a primary epileptiform focus was initiated with penicillin in one hemisphere, and at various subsequent time intervals KCl was applied and spreading depression produced. In the second procedure, spreading depression was induced in one hemisphere and a seizure focus later established in the other. Electrophysiological correlates of the chemical manipulations were monitored throughout. The effects of spreading depression on the developing and established primary and secondary foci were studied. Results indicated an antagonism between spreading depression and penicillin induced cortical seizure foci. Possible mechanisms underlying the observed interactions are discussed. 23 references.

154994 Ogawa, Nobuya. Department of Pharmacology, Kyushu University, Japan Group toxicity and individual toxicity - the size of a group and pharmacological effects. **Kyoiku to Igaku (Fukuoka). 20(2):173-180, 1972.**

An overview is provided of studies conducted by Gunn and Gurd (1940) and Chance (1946) on the pharmacological effects of amphetamine and tetrahydrocannabinol (THC) on animals raised in groups or in isolation. Amphetamine caused greater excitation in group raised than isolation raised rats. THC appeared to cause more aggressive behavior in group rather than isolation raised rats. It is cautioned, however, that environmental conditions during group or isolation raising will significantly influence the animals reaction to the drugs.

155341 Braun, J. Jay; Snyder, Daniel R. Dept. of Psychology, Arizona State University, Tempe, AZ 85281 Taste aversions and acute methyl mercury poisoning in rats. **Bulletin of the Psychonomic Society. 1(6A):419-420, 1973.**

Rats injected with methyl mercuric chloride following exposure to the taste of saccharin rejected saccharin on subsequent days to a significantly greater extent than either rats poisoned following plain water or rats injected with normal saline following saccharin exposure. Intraperiotoneal injections caused nonspecific reduction of fluid intake in addition to the specific rejection of saccharin, and intravenous injections were not accompanied by nonspecific effects. Methyl mercuric choloride is shown to be one of the substances that are effective unconditioned aversive stimuli for learned taste aversions. 13 references. (Author abstract)

156764 Cradock, J. C.; Davignon, J. P.; Litterst, C. L.; Guarino, A. M. Drug Development Br., Div. of Cancer Treatment, Natl. Cancer Inst., Bethesda, MD 20014 An intravenous formulation of delta9-tetrahydrocannabinol using a non-ionic surfactant. **Journal of Pharmacy and Pharmacology (London). 25(4):345, 1973.**

The suitability of a mixed solvent system of ethanol-polyethoxylated vegetable oil (PEVO) and physiological saline was evaluated for solubilization of delta9-tetrahydrocannabinol (THC). Nitrogen dried THC was added to the above solvent to yield a clear, tan colored solution containing 0.5to 10 mg of THC/ml. The vehicle was administered alone and with THC to New Zealand rabbits. Two of three animals died during the injection of THC (100mg/kg as a 14mg/ml formulation); they exhibited convulsions, twitching, vasodilation, and went through a period of rapid deep breathing followed by shallow intermittent breathing prior to death. When administered at 40mg/kg THC (as a 7mg/ml solution) induced hyperactivity and mild tonic extensions of the hind limbs in all four test rabbits; all four animals survived the 24 hour experimental period. Only slight ataxia and depression were evident in the control animals. 4 references.

157066 Chau, Thanh Thuy; Dewey, William L.; Harris, Louis S. Department of Pharmacology, School of Medicine, University of North Carolina, Chapel Hill, NC Mechanism of the synergistic lethality between pentazocine and vasopressin in the rat. **Journal of Pharmacology and Experimental Therapeutics. 186(2):288-296, 1973.**

The mechanism of the synergistic lethality between penazocine and vasopressin in the rat was examined. Pentazocine injected immediately before an injection of vasopressin caused a significantly greater lethality in rats than when either compound was given alone. This effect was not observed in either mice or dogs. There was no alteration of the lethality of pentazocine in mice when injections of vasopressin were given immediately after the narcotic antagonist analgesic. Vasopressin reduced the magnitude and duration of the behavioral effects of pentazocine in dogs. Oxytocin did not potentiate the lethality of pentazocine in rats. Pentazocine and vasopressin caused cardiac and respiratory depression leading to death in anesthetized rats but not in anesthetized dogs. Vagotomy did not block the synergistic lethality in the anesthetized rats. Vasopressin significantly increased the level of pentazocine in rat, but not mouse, brain and heart. Oxytocin which did not increase the lethality of pentazocine did not alter the level of pentazocine in rat brain tissue. 20 references. (Author abstract)

158304 Wesseling, H. Instituut voor Klinische Farmacologie der Rijksuniversiteit, Bloemsingel 1, Groningen, The Netherlands Comparative study of the efficacy of diazepam, pentobarbital, and fentanyl-droperidol (THALAMONAL) against toxicity induced by local anesthetics in mice. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 655-665).**

The effects of diazepam (DP) on the toxicity of lidocaine and tetracaine in mice were compared with those of pentobarbital (PB) and fentanyl-droperidol (F-D) or THALAMONAL. Isoboles were constructed for each antagonistic pair of drugs. DP and F-D prevented seizures more effectively than PB. However, the solvent of DP in high doses was itself a convulsant. DP markedly decreaseed the lethality of lidocaine. Higher doses of F-D and PB did too but low doses increased the lethality of lidocaine. DP and higher doses of PB markedly decreased the lethality of tetracaine whereas F-D increased it. 21 references. (Author abstract modified)

158474 Lechat, Paul. Institute of Pharmacology, Faculty of Medicine, Paris, France Studies on the mechanism of cardiac toxicity of tricyclic antidepressants. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):2, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, the mechanism of toxicity of the cardiac depressant imipramine was reviewed. Alterations of intraventricular conduction and bradycardia were found. On isolated heart of rat and guinea pig, a negative inotropic and chronotropic effect, as well as an increase in the refractory period were observed. Imipramine decreased the depolarization and repolarization velocity from ventricular strips. After a few minutes of contact duration, imipramine inhibited the spontaneous beating of cultivated cardiac myoblasts from the rat. In vivo and in vitro experiments showed that adding sodium lactate or sodium bicarbonate strongly inhibited conduction disturbances, diminished depolarization velocity, negative inotropic and bathmotropic effects of imipramine. All tricyclic antidepressants investigated (chlorimipramine, amitriptyline, protriptyline, desipramine, trimeprimine, nortriptyline, melitracen) were found qualitatively similar to imipramine as it concerns their cardiac toxicity. A specific spatial configuration seems to be related both to antidepressant and cardiac effects. (Author abstract)

158515 Tobe, Masuo; Kobayashi, Kazuo; Suzuki, Yasuo; Suzuki, Sachiko; Kawasaki, Yasushi; Khogo, Kyoko; Ikeda; Yoshio. Department of Toxicology, National Institute of Hygienic Sciences, Tokyo, Japan Long-term toxicity study of methylmercury chloride in monkeys (second report). **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):135, 1973.**

At the 46th General Meeting of the Japanese Pharmacological Society, an interim report on a long-term toxicity study was presented, in which five groups of five male monkeys were orally given daily doses of methylmercury chloride. At 555 days, no neurological or other symptoms were present in the groups of L1 and L2. The total amounts of mercury consumed during this period were 19 and 8mg, respectively, and the amounts of mercury in the hair were 31 and 73ppm on the 462nd day, which were almost the same as the values of 27 and 78ppm on the 277th day. One animal of the group H2, in which the administration of methymercury was stopped after the appearance of neurological symptoms, has survived. (Author abstract modified)

159068 Freed, Earl X. Alcohol Research Laboratory, Lyons, V.A. Hospital, Lyons, NJ Some issues of control in alcohol research on animal behavior. **Behavioral Neuropsychiatry. 4(9)-10):16-19, 1973.**

Traditional experiments studying alcohol's effects upon animal behavior are criticised on grounds of lack of experimental control. Some practical and theoretical aspects of possible solutions to this problem are explored with special referencence to alcohol administration via a schedule - induced polydipsic methodology. 22 references. (Author abstract)

159585 Freeman, J. W.; Loughhead, M. G. Intensive Care Unit, Royal Hobart Hospital, G.P.O. Box 1061 L, Hobart, Tasmania, 7001, Australia Beta blockade in the treatment of tricyclic antidepressant overdosage. **Medical Journal of Australia (Sydney). 1(25):1233-1235, 1973.**

Six cases of poisoning with the tricyclic compounds and the patients' responses to treatment with practolol are reported. Practolol was capable of reversing the effects of the tricyclic compounds, but it was not uniformly successful. It is suggested that the effects of overdosage of the tricyclic compounds may be mediated either through interference with catecholamine metabolism or by a direct effect on the cell membrane. A case of death due to the tricyclic compounds given in normal dosase is also mentioned. Further work is recommended to determine the side-effects of the tricyclic compounds. 9 references. (Journal abstract modified)

160038 Murakami, Ujihiro; Fujii, Osamu; Inoue, Minoru; Ito, Yoneo. Nagoya University, Japan Brain lesions on the mouse fetus caused by mono sodium glutamate (second report). **Annual Report of the Research Institute of Environmental Medicine. 13:177-179, 1972.**

Brain lesions in the mouse fetus following maternal administration of monosodium glutamate (MSG) during pregnancy is reported. CF#1-JCL mice were administered 5mg/g of MSG subcutaneously once on the 16th or 19th day of pregnancy, and the fetus was taken from the mother's body 3, 6, or 24 hours after the injection and was examined microscopically. Damage to the hypothalamus was less serious in those mouse fetuses treated on the 16th day of pregnancy. These mice showed pyknosis in a small number of the bow shaped nuclei of the hypothalamus. In those fetuses treated on the 19th day of pregnancy, pyknosis of the bow shaped nuclei was observed when the fetus was taken from the

mother's body three hours after the injection, and no change is found in the fetus when taken from the mother's body after 24 hours.

160464 Randall, Lowell O.; Kappell, Beryl. Dept. of Pharmacology, Research Div., Hoffman-La Roche Inc., Nutley, NJ 07110 Pharmacological activity of some benzodiazepines and their metabolites. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 27-51).**

The pharmacological activity of some of the marketed benzodiazepines and some of their potent derivatives is compared with that of phenobarbital. Screening tests for sedative, muscle relaxant, taming, antiaggressive and anticonvulsive activity in mice, rats, cats, cynomolgus monkeys and squirrel monkeys show large variations in potency among eight benzodiazepines. They may be separated into classes of low and high potency; all have high safety margins in contrast to phenobarbital. The metabolites of chlordiazepoxide hydrochloride, diazepam, medazepam, flurazepam and nitrazepam differ among rats, dogs and man and also show large species variation in the various screening tests. The greatest difference between the benzodiazepines and phenobarbital lies in the far superior safety margins of the benzodiazepines in all animal species tested. 38 references. (Author abstract modified)

160939 Bauer, G. E.; Hull, R. D.; Stokes, G. S.; Raftos, J. Cardiovascular Clinic, Sydney Hospital, New South Wales 2000, Australia The reversibility of side effects of guanethidine therapy. **Medical Journal of Australia (Sydney). 1(19):930-933, 1973.**

Following a suggestion based on animal experiments, that guanethidine administration may lead to permanent catecholamine depletion in genital organs, the reversibility of guanethidine induced side-effects in man was studied. Twenty eight male patients who had been treated with the drug for long periods were interviewed and examined; a similar investigation was done on 27 patients treated with methyldopa. Side-effects were frequent with both drugs but disappeared on cessation of therapy. Not a single case of permanent sexual failure unequivocably attributable to long-term guanethidine therapy has been encountered, in accordance with clinical experience including treatment of several hundred patients followed for up to 12 years. 7 references. (Author abstract modified)

161389 Mao, T. S. S.; Noval, J. J.; Plescia, O. J. Biochemical Research Department, E. R. Johnstone Training and Research Center, Bordentown, NJ 08505 Studies on the effect of tranquilizing drugs on the immune response. **International Pharmacopsychiatry (Basel). 8(3):173-177, 1973.**

Two phenothiazine tranquilizers, chlorpromazine (CPZ) and fluphenazine (FPZ) were given either subcutaneously or orally to rabbits before and after immunization with a single intravenous injection of sheep erythrocytes to determine the effect of the drugs on the immune response. CPZ was administered daily in increasing dosages until 40mg per day was reached. FPZ was administered similarly until a maintenance dose of 30mg per day was reached. The average maximal hemagglutination titers in the CPZ treated animals 2 weeks after immunization were 1:107 (s.c.)and 1:60 (orally), which did not differ significantly from the titer, 1:61, in control rabbits treated with daily injections of saline instead of phenothiazines. In FPZ treated animals, the maximal titers also 2 weeks after immunization were 1:40 (s.c.)and 1:40 (orally) as compared to control animals with maximal titer of 1:40. These results show that heavy dosages tested with CPZ or FPZ did not significantly alter the immune response in the system used. 4 references. (Author abstract)

163019 Iwata, H.; Okamoto, H. Department of Pharmacology, Osaka University, Toneyama, Toyonaka, Osaka-fu, Japan Effect of lithium on the blood and intestinal serotonin contents of rats. **Experientia (Basel). 29(8):988-989, 1973.**

The hypothesis that early side-effects commonly associated with lithium treatment are associated with disturbances of serotonin metabolism in the blood and alimentary tract was tested by examining the levels of serotonin in the blood and intestine of rats after lithium treatment. Lithium administration induced a pronounced increase in the blood 5-hydroxytryptamine (5-HT) level and a significant decrease in the duodenum and jejunum 5-HT contents. The results suggest that lithium ion acts on the storage site of 5-HT in the intestine, causing its release into the blood. Therefore, it seems likely that diarrhea induced by lithium is due to a transient elevation on the level of circulating 5-HT, due to its release from the intestine. 10 references.

163159 Thornton, William E.; Thornton, Bonnie Pray. Professional Arts Bldg., 848 First Avenue North, Naples, FL 33940 Tardive dyskinesias

from the major tranquilizers. **Journal of the Florida Medical Association. 60(9):24-26, 1973.**

Tardive dyskinesias, a potentially serious and sometimes irreversible neurological side effect of the major tranquilizers is discussed. Two cases are described in which the appropriateness of a major tranquilizer as the drug of choice is questionable. A history of the syndrome, and its description is provided and discussed. The therapeutic approaches which have been tried are numerous and generally unsuccessful. There is some evidence to suggest that the common practice of combining antiparkinson drugs with the major tranquilizers may decrease the threshold for tardive dyskinesias and worsen the condition. Preventive recommendations are provided. 15 references. (Author abstract modified)

163632 Arvela, P.; Karki, N. T.; Nieminen, L.; Bjondahl, K.; Mottonen, M. Department of Pharmacology, University of Oulu, SF-90 100 Oulu 10, Finland Effect of long-term fenfluramine treatment on drug-metabolism in rat. **Experientia (Basel). 29(4):454-455, 1973.**

The question of whether long-term fenfluramine treatment interferes, and to what extent, with the drug metabolizing enzymes of rat liver was examined. Subject rats were given various concentrations of fenfluramine hydrochloride aqueous solution. A slight reduction in food consumption and a retardation of weight gain occurred only in the group receiving the largest dose for the longest period of time. Hyperexcitability was also observed among the most heavily dosed rats at the beginning of the treatment. The larger doses caused a significant increase in the relative liver weights, but in histological examinations, no morphological changes could be found. The higher doses stimulated the drug metabolizing capacity of the liver microsomes. These results show that increased hepatic drug metabolism may take place during the chronic fenfluramine treatment in humans. 14 references.

163635 Chaplin, M. D.; Roszkowski, A. P.; Richards, R. K. Department of Experimental Pharmacology, Syntex Research, Palo Alto, CA 94304 Displacement of thiopental from plasma proteins by nonsteroidal anti-inflammatory agents. **Proceedings of the Society for Experimental Biology and Medicine. 143(3):667-671, 1973.**

Several nonsteroidal antiinflammatory agents were examined for their capacity to alter the plasma binding of thiopental which, in some instances, caused reinduction of thiopental sleep. Intravenous administration of high doses of aspirin, phenylbutazone or naproxen to rats which had just regained the righting reflex from an anesthetic dose of thiopental caused them to again lose their righting reflex. Naproxen was also shown to reinduce thiopental sleep in rabbits and the reinduction of sleep was correlated with a marked elevation in the concentration of unbound thiopental in plasma. Furthermore, high concentrations of aspirin, phenylbutazone, indimethacin, mefenamic acid and naproxen were shown to displace thiopental from rabbit plasma proteins in vitro. These results suggest that high concentrations of nonsteroidal antiinflammatory agents, all of which strongly bind to plasma proteins, effectively displace thiopental from plasma proteins, thus leading to reinduction of its action. 10 references. (Author abstract)

163637 Sorrell, M. F.; Tuma, D. J.; Noffsinger, J. K.; Barak, A. J. Liver Study Unit, Gastroenterology Section, University of Nebraska College of Medicine, Omaha, NB 68105 Phenobarbital-induced fatty livers in the rat. **Proceedings of the Society for Experimental Biology and Medicine. 143(3):839-843, 1973.**

The effects of phenobarbital on the liver of the rat were studied. Administration of phenobarbital to rats fed a standard laboratory diet or six different synthetic diets produced elevated levels of triglyceride, phospholipid and total cholesterol in the livers of these animals. By varying the choline, fat, and protein constituents in these diets, it appears that choline and rat content are factors influencing the amount of triglyceride accumulating in livers as a result of phenobarbital administration. These dietary factors, however, did not appear to regulate the manner in which phenobarbital elevated phospholipid and total cholesterol levels. 16 references. (Author abstract)

165730 Inoue, Minoru; Hoshino, Kiyoshi; Murakami, Ujihiro. Nagoya University, Japan Embryo-fetotoxic effect of methylmercuric chloride in rats and mice. **Annual Report of the Research Institute of Environmental Medicine. 13:180-182, 1972.**

The effect of methylmercuric chloride on the embryos and fetuses of rats and mice is reported. Wistar rats were administered 5mg/kg/day of 0.1-0.15% methylmercuric chloride from either the first day of pregnancy to the twelfth day, or from

days 7-14, or from days 12-20. The ddn mice received 30mg/kg, once between the sixth and the thirteenth day of pregnancy. The fetuses of the rats were taken from the mother's body on the twentieth day of pregnancy, and that of mice on day 18 and were examined microscopically. The control group was not administered methylmercuric chloride. Methylmercuric chloride induced strong developmental anomalies in the fetuses of mice such as cheilognathopalatoschisis, and Mikrognathie while no anomalies were induced in rats. Tissue damage appeared both in mice and rats, in the palliu, Balken, Gewolbe, Hypothalamus, and pedunculus cerebri. Expansion of the ventricles and Desquamation of the ependyma were also found. No significant difference in brain damage was found as a result of the different times of injection.

166022 Landsberg, Lewis; Taubin, Howard L. Harvard Medical Unit, Thorndike Memorial Laboratory, Boston City Hospital, 818 Harrison Ave., Boston, MA Uptake and metabolism of L-3,4-dihydroxyphenylalanine (dopa) in rat tissues. **Biochemical Pharmacology (Oxford). 22(22):2789-2800, 1973.**

The uptake and metabolism of L-3,4-dihydroxyphenylalanine (dopa) in different rat tissues were studied after the administration of a single parenteral dose of L-dopa. The glandular portion of the rat stomach concentrated dopa in excess of plasma, while cardiac dopa levels remained at or below the corresponding plasma level. The accumulation of dopa was significantly greater in the glandular stomach than in the heart, duodenum, ileum or nonglandular stomach. The duodenum and ileum synthesized significantly more dopamine (DA) from dopa than did the other tissues. Dopa and DA stores in the stomach were resistant to reserpine; 6-hydroxydopamine (6-OHDA) partially inhibited dopa and DA accumulation in glandular stomach but not in heart. The uptake and metabolism of dopa seem to be heterogenous. The tissues of the gastrointestinal tract, in particular, are capable of taking up, metabolizing, and storing dopa and dopa metabolites in high concentration. The uptake and metabolism of dopa are largely outside the adrenergic nerves. 24 references. (Author abstract modified)

166736 Van Gelder, Gary A.; Carson, Tom; Smith, Richard M.; Buck, William B. Behavioral Toxicology Laboratory, Veterinary Diagnostic Laboratory, Iowa State University, Ames, IA Behavioral toxicologic assessment of the neurologic effect of lead in sheep. **Clinical Toxicology. 6(3):405-418, 1973.**

The behavioral toxicologic effects of oral doses of lead was studied in adult female sheep. Eight sheep were trained to depress a pedal following the presentation of an auditory signal. Four sheep were dosed with 100mg lead/kg daily for 9 weeks and four served as unexposed controls. After 4 weeks the difference between the number of correct responses on successive days was significantly more variable in the lead dosed sheep. After 9 weeks, the dosed animals achieved significantly fewer percent correct responses. The performance of three groups of five sheep was tested on a fixed interval schedule of reinforcement. There was no significant difference between the number of reinforcements achieved by the three groups. There was no significant difference between the number of pedal responses of the control versus low lead or control versus high lead. The difference in the mean number of pedal presses between the low lead and high lead was significant. 19 references. (Author abstract modified)

166737 Scharding, N. N.; Oehme, F. W. Comparative Toxicology Laboratory, Kansas State University, Manhattan, KS Use of animal models for comparative studies of lead poisoning. **Clinical Toxicology. 6(3):419-424, 1973.**

The use of animal models for comparative studies of lead poisoning is discussed. A variety of common laboratory and domestic animals, as well as household pets, possess unique and relatively unknown physiological responses to lead that make them well suited as models for investigations into the mechanisms of action of lead intoxication. This is especially true with studies dealing with the effects of long-term ingestion of lead. These specific characteristics should be utilized by researchers and clinical investigators in detecting and studying the subtle biological effects of environmental lead on man and animals. 22 references. (Author abstract)

166785 Silbergeld, Ellen K.; Goldberg, Alan M. Department of Environmental Medicine, School of Hygiene & Public Health, The Johns Hopkins University, Baltimore, MD 21205 A lead-induced behavioral disorder. **Life Sciences (Oxford). 13(9):1275-1283, 1973.**

A lead induced behavioral disorder in mice is reported. Mice were exposed to lead from birth by substituting solutions of lead acetate for the drinking water of mice 12 hours after parturition. Controls received equal concentrations of sodium acetate. There were no deaths in mothers or offspring due to treatment, but growth and development were retarded in the lead treated offspring. Activity of offspring was measured between 40 and 60 days of age for 4 consecutive days. Treated mice were more than three times as active as aged matched controls. These studies show that chronic ingestion of lead can produce a significant behavior disorder in mice. 12 references. (Author abstract modified)

166788 Sharma, Raghubir P. Department of Veterinary Science, Utah State University, UMC 56, Logan, UT 84322 Brain biogenic amines: depletion by chronic dieldrin exposure. **Life Sciences (Oxford). 13(9):1245-1251, 1973.**

The depletion of brain biogenic amines by dieldrin exposure in ducks is reported. Chronic dietary exposure to dieldrin in mallard ducks caused an;caused an appreciable depletion of brain serotonin, norepinephrine and dopamine, but not of gamma-aminobutyrate. Such alterations may account for the toxic effects in animals following chronic pesticide exposure. Changes in brain biogenic amines may possibly be related to behavioral disorders following exposure to such environmental contaminants. 15 references. (Author abstract)

06 METHODS DEVELOPMENT

150321 Khavari, Khalil A.; Risner, Marc E. Dept. of Psychology, Univ. of Wisconsin - Milwaukee, Milwaukee, WI 53201 Concentration-ingestion relations of morphine-adulterated food and morphine solution. **Psychopharmacologia (Berlin). 30(1):45-60, 1973.**

The concentration ingestion parameters of morphine adulterated food and liquid were investigated in 72 naive male Sprague-Dawley rats. Four groups (n=16 per group) of rats were given ad libitum access to morphine adulterated food in one of four different concentrations (1, 2, 3 or 4mg morphine HCl/g milled food). Half of the Ss in each group were given ad libitum water while the other half were provided with sucrose morphine (1mg morphine HCl/ml 10% sucrose). Daily measures of body weight, food, liquid, caloric and morphine intake were recorded for each animal. All eight treatment regimens are effective in inducing physical dependence on morphine as shown by 1) preference for the morphinized food (1 and 2mg/g groups) or 2) observable withdrawal signs in rats which failed to maintain their daily morphine intake (3 and 4mg/g groups) in a subsequent choice test between plain food and morphine adulterated food at the respective concentration. Caloric intake for all groups is similar to a nondrugged control group. It is concluded that opiate dependence can be achieved by adulterating both the food and liquid regimen of the rat with morphine. 8 references. (Author abstract modified)

150413 d Silva, J. Arthur F.; Munno, Nancy; Weinfeld, Robert E. Dept. of Biochem. and Drug Metabolism, Hoffman-LaRoche, Inc., Nutley, NJ 07110 Determination of a benzothiazepin-2-one in blood by GLC-electron-capture detection. **Journal of Pharmaceutical Sciences. 62(3):449-452, 1973.**

A sensitive and specific blood level method employing GLC election capture detection for the determination of 8-chloro-1-(3-dimethylaminopropyl)-3,5-dihydro-4,1-benzothiazepin-2(1H -one(I) in man following administration of single 100 and 200mg oral doses is described. The doses were administered 7 days apart and involved selective extraction of the compound into ether from the blood or plasma made alkaline with sodium hydroxide, followed later by reextraction into ether, which was then evaporated and the residue dissolved. The solution was then analyzed by GLC and the overall recovery of I-hydrochloride added to blood or plasma was assayed at about 85%. The sensitivity limit was approximately 0.015 microg I/ml blood or plasma using a 4-ml sample per assay. 9 references. (Author abstract modified)

153026 Peachey, John E.; Stancer, Harvey C. Addiction Studies Unit, Kinsston Psychiatric Hospital, Kingston, Ontario, Canada An animal model for psychopharmacological research with relevance to psychiatry. **Canadian Psychiatric Association Journal (Ottawa). 18(2):139-146, 1973.**

The concept is presented that animal models for psychopharmacological research should take into account clinical methods if they are to yield information which is relevant to psychiatry. Animal species with appropriate behavioral characteristics should be selected, drugs should be used if social interaction is to be observed. Some of the relevant pharmacological, behavioral, and enviromen-

tal factors are presented and illustrated with examples taken from a study of groups of squirrel monkeys who had received parachlorophenylalanine or alpha-methylparatyrosine to lower specific brain amines. It is noted that social interaction may affect the expression of the drug effect. 52 references.

156650 Borga, O.; Garle, M.; Gutova, Marcela. Dept. of Pharmacology, Swedish Med. Research Council, Karolinska Inst., Stockholm, Sweden Identification of 5-(3,4-dihydroxyphenyl)-5-phenylhydantoin as a metabolite of 5,5-diphenylhydantoin (Phenytoin) in rats and man. **Pharmacology. 7(3):129-137, 1972.**

The identification of a new metabolite of diphenylhydantoin (DPH) is described. The metabolite, 5-(3,4-dihydroxyphenyl)-5-phenylhydantoin, is a diphenolic metabolite of DPH and has a catechol structure. It has been identified via gas chromatography and mass spectrometry in urine samples from humans and adult female Sprague-Dawley rats. The metabolite is present mainly in the conjugated form. It is probably formed in vivo by dehydrogenation of the dihydrodiol 5-(3,4-dihydroxy-1,5-cyclohexadien-1-yl)-5-phenylhydantoin. 11 references. (Author abstract modified)

156763 Olsen, James L.; Makhani, Massoud; Davis, Kenneth H.; Wall, Monroe E. Div. of Pharmaceutics, School of Pharmacy, Univ. of NC, Chapel Hill, NC 27514 Preparation of delta9-tetrahydrocannabinol for intravenous injection. **Journal of Pharmacy and Pharmacology (London). 25(4):344, 1973.**

In a letter to the editor, a method for preparing a clear saline solution of delta9-tetrahydrocannabinol (THC) and related cannabinoids which can be injected intravenously in relatively small volumes is discussed. The solution consists of THC (0.1% w/v), alcohol USP (5% v/v), Emulphor EL-620 (0.6% v/v) (or Tween 80, 1.5% v/v), and saline q.s. The THC is prepared as a 2% w/v solution in the ethanol to facilitate handling and measurement. The surfactant is added next, after which the saline is added. This preparation is easily sterilizable, is infinitely dilutable in water without visual precipitation, and negligible hemolysis is observed. 3 references.

156806 Waldeck, Bertil. Dept. of Pharmacology, Univ. of Goteborg, Pack, S-400 33 Goteborg 33, Sweden On the use of ethanol as a scavenger in storing labelled dopa and 5-hydroxytryptamine in aqueous solutions. **Journal of Pharmacy and Pharmacology (London). 25(6):502-503, 1973.**

The use of ethanol as a scavenger in storing radioactively labeled L-dopa and 5-hydroxytryptamine (5-HT) in aqueous solutions is questioned. Exposure of ethanol to ionizing radioaction in the presence of water results in the formation of inter alia acetaldehyde, with which dopa condenses to form tetrahydroisoquinoline derivatives and with which 5-HT condenses to form tetrahydro-beta-carbolines. When radiolabeled L-dopa was added to a solution containing acetaldehyde three distinct peaks of radioactivity with a slight indication of a fourth appeared when the mixture was scanned for radioactivity; a similar pattern of radioactive contaminants was seen ehsn (3H)dopa was stored in an ethanolic, neutral aqueous solution. However, when the reaction with acetaldehyde was performed at pH 2, only one peak of radioactivity appeared in the same position as suthentic L-dopa, indicating that acidification should improve the stability of labeled dopa in ethanolic aquaous solutions. 5-HT appeared to react with acetaldehyde, forming a new compound, as indicated by a second peak of radioactivity; in this case, the reaction also occurred at pH 2. The same pattern was noted when (3H)5-HT was stored in an ethanolic aqueous solution, 10 references.

156823 Horst, W. D.; Pool, W. R.; Spiegel, H. E. Research Division, Hoffmann-La Roche Inc., Nutley, NJ Correlation between brain dopamine levels and l-dopa activity in anti-parkinson tests. **European Journal of Pharmacology (Amsterdam). 21(3):337-342, 1973.**

The activity of l-dopa and dopamine in antioxotremorine and reserpine reversal tests in male CF-1S mice was compared with l-dopa induced changes in the brain dopamine levels. Oxotremorine induced tremors and hypothermia were prevented by both l-dopa and dopamine despite the fact that only l-dopa increased the brain dopamine levels. Furthermore, a peripheral decarboxylase inhibitor that increased brain dopamine levels completely abolished the activity of l-dopa in the oxotremorine test. Reserpine induced ptosis was also reversed by l-dopa and dopamine. However, reserpine induced catatonia was reversed only by l-dopa and was directly correlated with brain dopamine levels. Pretreatment with a peripheral decarboxylase inhibitor increased the l-dopa reversal of reserpine catatonia

correlating with increased brain dopamine levels. Since oxotremorine induced tremors and hypothermia, as well as reserpine induced ptosis, can be influenced by peripheral drug effects the reversal of reserpine induced catatonia appears to be a better model for use in the search for antiparkinson drugs. 17 references. (Author abstract)

156827 Kosersky, Donald S.; Harris, Louis S. Dept. of Pharmacology, School of Medicine, Univ. of North Carolina, Chapel Hill, NC 27514 Chronic intravenous drug administration in the pigeon. **European Journal of Pharmacology (Amsterdam). 21(3):379-382, 1973.**

A procedure is described for the infusion or repeated injection of drugs into the unanesthetized unrestrained pigeon by means of a chronic indwelling i.v. cannula. With relatively minor modifications, this method can be applied to most avian species. This method was used in an experiment in which morphine sulfate and naloxone hydrochloride were administered at a constant dosage while white Carneaux pigeons keypecked under a fixed-ratio schedule for food reinforcement. Morphine produced an immediate cessation of responding for a time period exceeding 3 hours. When injected alone, naloxone produced no behavioral changes; however, it antagonized the effects of morphine. The method used for infusing the drugs allowed the pharmacologic actions of the drugs to be determined without the necessity of having to interrupt ongoing behavior. 10 references.

156848 Wawschinek, O. Institut fur medizinische Chemie und Pregl-Laboratorium der Universitat, Universitatsplatz 2, A-8010 Graz, Austria /Rapid detection of barbiturates in urine./ Schnellnachweis von Barbituraten im Harn. **Wiener Medizinische Wochenschrift (Wien). 123(13):216-217, 1973.**

The presence of barbiturates in urine may be quickly detected by a murexide speck reaction between a chloroform urine extract and dehydrated copper sulfate. The advantage of the procedure here described is its greater rapidity (30 minutes) when compared with other methods. 10 references. (Author abstract modified)

156867 Wright, G. E.; Tang Wei., T. Y. Dept. of Medicinal Chemistry, School of Pharmacy, Univ. of Maryland, Baltimore, MD 21201 Paramagnetic ion induced shifts in the N. M. R. spectra of reserpine and methyl 3,4,5-trimethoxybenzoate. Final report, NIMH. Grant MH-13826, 5 p.

Lanthanide nuclear magnetic shift reagents (n.m.r.)have a potential utility in structural studies of natural products. Pseudocontact shifts in the n.m.r. spectra of reserpine and methyl 3,4,5-trimethoxybenzoate resulting from the addition of Eu(fod)3 (Europium) are related to binding site and molecular conformation. Intramolecular multidentate binding is proposed to account for the observed shifts. 7 references. (Author abstract modified)

156906 Cho, A. K.; Lindeke, B.; Hodshon, B. J.; Jenden, D. J. no address Deuterium substituted amphetamine as an internal standard in a GC/MS assay for amphetamine. Final report, NIMH Grants MH-20473 and MH-17691, 1972. 13 p.

Deuterium enriched amphetamine was prepared and characterized for use as an internal standard in a gas chromatography -- mass spectrometry (GC/MS) assay for amphetamine in plasma. GC/MS couples the high resolving power of gas chromatography with the sensitive and specific detecting capability of the mass spectrometer and is especially useful in drug analysis. Amphetamines with deuterium substitution at three different positions were synthesized for evaluation as internal standards for a GC/MS assay. Of these compounds, (0)-1-phenyl(3,3,3-2H3)isopropylamine was found to be the most suitable as the internal standard. A multistep extraction procedure has been developed which terminates in the conversion of plasma amphetamine to its trifluoroacetyl derivative which is analyzed by GC/MS. 9 references. (Author abstract modified)

158057 Erickson, Carlton K.; Graham, David T.; U'Prichard, Terri. Department of Toxicology, Swedish Medical Research Council, Karolinska Institutet, 10401 Stockholm 60, Sweden Cortical cups for collecting free acetylcholine in awake rats. (Unpublished paper) University of Kansas, Lawrence, Kansas, 1973. 11 p.

A method is described for collecting acetylcholine released from the cerebral cortex of awake rats. Bilateral transparent nylon cortical cups remain usable for at least 2 months after implantation, and will hold sufficient Locke's solution so that acetylcholine released in a 15 minute period can be analyzed by the leech muscle bioassay. An increase in acetylcholine released into the cups after nicotine, 0.4mg/kg ip, illustrates that the method is suitable for determining drug induced alterations in neurotransmitter release in

rats during ongoing behavior. 7 references. (Author abstract)

159043 Spohn, Herbert E. The Menninger Foundation, Topeka, KS 66601 The case for reporting the drug status of patient subjects in experimental studies of schizophrenic psychopathology. **Journal of Abnormal Psychology. 82(1):102-106, 1973.**

The necessity of reporting the drug status of patients in experimental studies of schizophrenic psychopathology is presented. Experimental literature suggests that drug treatment variables, such as presence or absence of medication and daily dosage levels, exercise some degree of direct or indirect influence upon some performance and somatic response variables of interest in experimental investigations of schizophrenic pathology. Suggestions for the management of potential antipsychotic drug variance are made, and it is recommended that the drug status of schizophrenic patients in all experimental studies be reported in detail. 17 references. (Author abstract modified)

159370 Peskar, Bernard; Spector, Sydney. Institute of Pharmacology, Waehringerstrasse 13a A1090, Vienna 9, Austria Quantitative determination of diazepam in blood by radioimmunoassay. **Journal of Pharmacology and Experimental Therapeutics. 186(1):167-172, 1973.**

The production of two different antibodies against diazepam analogs, one being specific for diazepam and the other one recognizing both diazepam and its N-demethylated metabolite are described. By using these antisera, a radioimmunoassay was developed capable of detecting 1ng of diazepam which is linear up to 100ng. The radioimmunoassay was applied for the measurement of both diazepam and N-demethyldiazepam in dried ether extracts of whole human blood. Values were compared with those determined by gas - liquid chromatography and found to be in good agreement. It is concluded that the assay might find application especially when only limited amounts of blood or plasma are available. 17 references. (Author abstract)

159397 Marino, Adriano. Dept. of Pharmacology, University of Bari, Italy Drugs in stressed and non-stressed animals. **Conditional Reflex. 8(3):170, 1973.**

In the proceedings of the 13th meeting of the Pavlovian Society, research was discussed involving: (1) experimental approach to psychosomatic medicine; (2) psychosomatic approach to pharmacology; and (3) pharmacological application in psychosomatic medicine. A preliminary differentiation of somatic, somatopsychic, and psychosomatic effects of psychotropic drugs is proposed. Accurate choice of drug will then be oriented toward corresponding manifestations of the disease. Appropriate methods to evaluate the activity of a drug from the psychosomatic point of view involving inducing psychological stress by a conflict situation in animals previously conditioned to an avoidance situation are discussed. Psychotropic drugs have already shown a high undoubted efficacy in mental diseases. Since in mental disease, the relevant psychodynamics may be as complicated as in psychosomatic diseases, there is no reason to omit application of psychotropic drugs from the management of the psychic component in psychosomatic diseases. (Author abstract modified)

161380 Snodgrass, S. R.; Horn, A. S. MRC Neurochemical Pharmacology Unit, Medical School, Cambridge CB2 2QD, England An assay procedure for tryptamine in brain and spinal cord using its 03H0dansyl derivative. **Journal of Neurochemistry. 21(3):687-696, 1973.**

The tryptamine content of rat and mouse brain and spinal cord was determined with a radiochemical derivative assay, using (3H)dansyl chloride. The amine was extracted into toluene-isoamyl alcohol, back-extracted into dilute acid, then absorbed onto a non-ionic polystyrene resin, and dansylated in tetrahydrofuran after elution from the resin. Optimum recoveries were obtained with TCA extracts, although significant losses occurred due to surface adsorption and protein binding. The brain content of tryptamine increased after MAO inhibition and was not significantly further increased when tryptophan loading was combined with inhibition of MAO and/or tryptophan 5-hydroxylase. The tryptamine concentration of spinal cord exceeded that of brain and increased rapidly after death. Among brain regions tryptamine concentrations were greatest in hypothalamus and striatum and lowest in cerebral cortex and cerebellum. 36 references. (Author abstract)

162138 Papavasiliou, Paul S.; Cotzias, George C.; Lawrence, William H. Medical Research Center, Brookhaven National Laboratory, Upton, Long Island, NY Levodopa and dopamine in

cerebrospinal fluid. **Neurology. 23(7):756-759, 1973.**

To study the usefulness of analyzing cerebrospinal fluid in the treatment of parkinsonism with levodopa, and procedure was developed for measuring dopa and dopamine in CSF. In 19 patients, these became measureable only after levodopa administration, but their levels did not correlate with dose of the drug, clinical improvement, or levodopa dependent intermittent dyskinesia. A noncerebral origin of these substances was suggested by the markedly increased ratio of dopa to dopamine in CSF of patients receiving the peripheral dopa decarboxylase inhibitor L-alpha-methyldopahydrazine. The CSF did reflect the action of pyridoxine by a drop in dopa levels, but a more convenient biochemical marker for this action was urinary dopamine. The present usefulness of CSF analyses in treating parkinsonism is therefore questioned, and the possibility of developing methods applicable to brain biopsies is mentioned. 16 references. (Author abstract)

165729 Siegel, R. K.; Lee, M. A.; Jarvik, M. E. Dept. of Pharmacology, University of California, Los Angeles, CA 90024 A device for analyzing drug-induced responses in freely moving mice. **Journal of the Experimental Analysis of Behavior. 18(3):415-418, 1972.**

A device designed to chronically record the head twitch in freely moving mice without surgical preparation or restraints on the animal is described. The design includes low cost, simple construction, automatic recording, and reliable conversion to and interfacing with electromechanical or solid state scheduling equipment. Studies demonstrating the effectiveness of the magnetic unit are reviewed. Results indicate the device has the unique advantage of measuring hallucinogen induced responses that are independent of the general activity changes. 11 references.

165998 Beckett, A. H.; Coutts, R. T.; Ogunbona, F. A. Department of Pharmacy, Chelsea College, University of London, London, S.W.3, England Metabolism of amphetamines. Identification of N-oxygenated products by gas chromatography and mass spectrometry. **Journal of Pharmacy and Pharmacology (London). 25(9):708-717, 1973.**

It is established that primary and secondary hydroxylamines, oximes and nitrones derived from amphetamines can be separated without prior derivatization. A sensitive method for the isolation and identification of N-oxygenated metabolites and metabonates of medicinal amines is described. A combination of gas chromatography and mass spectrometry is effective in separating and identifying secondary hydroxylamines, oximes, and nitrones, all of which are N-oxygenated products of secondary amines. These products give mass spectra containing diagnostic fragment ions which are of great value in identification. Primary hydroxylamines are oxidized on column to oximes and can be separated and identified as such. This oxidation is avoided if the primary hydroxylamine is introduced by direct inlet into the mass spectrometer. Secondary hydroxylamines are more stable during gas chromatographic examination although some decomposition to nitrone and secondary amine does occur. In contrast, oximes and nitrones show no tendency to decompose when gas chromatographed. 10 references. (Author abstract)

166901 Carson, Frederick W. Department of Chemistry, American University, Washington, DC Analysis of amphetamines and other psychoactive drugs. Final Report, NIMH Grant MH-22270, 1973, 25 p.

A quantitative, colorimetric assay for (s)-(+)-amphetamine at the 10-100 nanogram level was developed which may be applied to biological fluids. Reaction of (s)-(+)-amphetamine with a ten fold or larger molar excess of 2,5-dimethoxyoxolane in glacial acetic acid-chloroform mixtures at 100 deg for 10 min gives (s)-(+)-1-phenyl-2-(1-pyrrolyl)-propane quantitatively. Addition of a fifty fold or larger molar excess (based on (s)-(+)-amphetamine) of (E)-p-dimethylaminocinnamaldehyde in acidic ethanol at room temperature gives a blue solution with maximum wavelength 629 nm. Under appropriate conditions, the formation of the colored complex takes a few minutes, while its decomposition has a half-life of several hours. Blood serum or urine samples containing at least 2microg/ml of (s)-(+)-amphetamine may be analyzed by adjusting pH to 8-9, extraction with an equal volume of chloroform, and treatment of the extract as described. Pure samples or extracts both display a linear dependence of the absorbance on initial concentration of (s)-(+)-amphetamine. 18 references. (Author abstract)

CLINICAL PSYCHOPHARMACOLOGY

07 EARLY CLINICAL DRUG TRIALS

150294 Angrist, Burton; Gershon, Samuel. Neuropsychopharmacology Research Unit, Dept. of Psychiatry, NY Univ. Medical Ctr., New York, NY 10016 Behavioral profile of a potent new psychotoxic compound. **Psychopharmacologia (Berlin). 30(2):109-116, 1973.**

The first human administration of a new thebaine derivative, C1 110,393, is described. The drug, which was administered to three adult males, elicited visual imagery with eyes closed, synesthesia, and hallucinatory phenomena. In addition, dysphoria, estrangement, withdrawal, and some confusional trends were noted. Physical effects such as tinnitus, ptosis, slurred speech, ataxia, perspiring, tingling of the skin, an increase in deep tendon reflexes, and variable effects on blood pressure were noted. These effects were of prolonged duration and were elicited by drug doses as low as 1microg/kg. In some respects, C1 110,393 may be compared with psychotomimetics such as LSD, while in other aspects, including structure, it is more similar to the dysphoriant psychotomimetic opiate antagonists. It is concluded that neither animal test systems nor structure can reliably predict the psychotogenic potential of a drug, which poses a major difficulty in the search for nonnarcotic analgesics. 6 references. (Author abstract modified)

150672 Sartory, Gudrun; Rust, John. Institute of Psychiatry, University of London, De Crespigny Park, Denmark Hill, London S.E.5, England The effects of a single administration of etifoxine on several psychological tests. **Psychopharmacologia (Berlin). 29(4):365-384, 1973.**

The effects of etifoxine on 16 healthy Ss were measured employing perceptual, psychophysiological and motor tests, in addition to which a personality inventory was given. All Ss took both drug and placebo with an interval of 1 week according to a balanced design. The same experimental procedure was used on both occasions under double-blind conditions. The difference between the two sessions was tested for significance. Analyses of covariance were carried out with respect to the personality factors psychoticism, extraversion and neuroticism. The drug has depressant effects on performance in perceptual tests, particularly flicker fusion. It affects habituation to tone of both the evoked cortical potential and the GSR in the same direction. The drug seems completely inactive with respect to motor performance. There is a distinct interaction between drug effect and personality factors. Ss whose scores indicated a low level of cortical arousal are less affected by the drug than others. 32 references. (Author abstract)

150775 Hoyos, Jorge Meneses. Clinica del Aparato Cardiovascular, Escuela Medico Militar de Mexico, Mexico City, Mexico /Psychopharmaceuticals. II. Phenothiazine derivatives./ Los psicofarmacos. II. Los derivados de la fenotiazina. **Revista Medicina Mexicana (Mexico City). 52(1135):301-309, 1972.**

The physical and emotional effects of phenothiazine compounds are examined in laboratory studies of dogs and monkeys and in clinical evaluation of psychologically disturbed patients. Results indicate that these neuroleptics inhibit emotional reactions in dogs, monkeys and human beings. The effects on the EEG of many stimuli (pain, optic, acoustic) on sensitive nerves and of adrenaline, as well as of electrical stimulation of the mesencephalic reticular system are inhibited by phenothiazine derivatives, like chlorpromazine. Chlorpromazine depresses diencephalic centers of temperature, vasomotoricity as well as medulla oblongata centers. These drugs also inhibit spinal reflexes and myocardial excitability. In experimental studies, chlorpromazine has an antagonistic effect on adrenaline, acetylcholine, histamine and 5-hydroxytryptamine action. The effect of phenothiazine compounds on extrapyramidal motoricity is to be found only when long-term high doses have been administered. This effect resembles parkinsonism and is to be attributed to interference with dopa metabolism. Sudden interruption of phenothiazine compounds may provoke a serious syndrome of hyperkinesia, diarrhea and even sudden death. Long-term administration may lead to depression and even to suicide. Ordinary side-effects consist only of tachycardia, dryness of mouth, constipation, low blood pressure and weakness. 53 references. (Journal abstract)

150831 Forrest, Fred M.; Forrest, Irene S. Veterans Administration Hospital, Palo Alto, CA 94304 Piperacetazine in chronic mental patients:

clinical observations and new urine color test. **Current Therapeutic Research. 14(11):689-695, 1972.**

Piperacetazine, a piperidine derivative of phenothiazine, was administered in daily doses of 25 to 150mg to 22 male patients with chronic mental illness, in a majority of whom the diagnosis of schizophrenia could be established, for periods of 6 weeks to 15 months. Maximum improvement occurred in the dosage range of 30 to 75mg per day. Infrequent side-effects (insomnia and akathisia) were dose related. Three patients (14%) improved beyond the level reached by previous chemotherapy and were discharged from the hospital. Seven patients (32%) showed marked or moderate improvement. Six patients (27%) were unchanged, while six patients (27%) were rated worse. Piperacetazine was discontinued because of side-effects in this last group. In addition, 14 patients received piperacetazine in combination with other neuroleptics over a 3-month trial period. Over 40% of these chronic patients improved to an extent not attained by their previous drug treatment, indicating that piperacetazine is a useful rehabilitative agent. A rapid urine color test for direct semiquantitative determinations of excreted piperacetazine was developed for three dosage levels. The test solution reported was found to be less apt to produce false positives than the FPN test. 10 references. (Author abstract modified)

150834 Sathananthan, G.; Park, S.; Lee, H. K.; Gershon, S. Neuropsychopharmacology Research Unit, N.Y.U. Medical Center, Dept. of Psychiatry, New York, NY 10016 Clinical evaluation of two proposed antidepressants. **Current Therapeutic Research. 14(11):711-715, 1972.**

A 25794 and A 22700, two compounds with antidepressant and tranquilizing properties as indicated in animal experiments, were studied in two groups of 10 patients of various psychiatric diagnoses to observe changes in symptom profiles. Neither drug produced any significant changes either in clinical status or in rating scores. Side-effects were minimal and disappeared after discontinuance of medication. Lab tests failed to demonstrate drug related changes. Correlation between animal studies and clinical efficacy are examined. Several factors may be operative in the lack of correlation between animal studies and clinical efficacy: lack of correlation between animal models of depression, anxiety and tranquility and such states in man; differences in metabolic pathways in animals and dose discrepancy between animal and clinical studies. The predictive value of animal studies is questioned; the possibility that potentially useful drugs may be discarded because they do not respond to animal screen methods is discussed. 8 references. (Author abstract modified)

151263 Spoladori, S. Ospedale Psichiatrico Provinciale di Rovigo, Rovigo, Italy /Clinical experiments with a new psychotropic: sulpiride./ Esperienze cliniche con un nuovo psicofarmaco: la sulpiride. **Riv. Sper. di Freniatria e Med. Legale delle Alien. Ment. (Reggio Emilia). 96(6):1690-1700, 1972.**

The positive results with sulpiride in the treatment of 31 patients with various mental disturbances are summarized. Of 13 patients affected by schizophrenia seven showed significant improvement from delirium and hallucinations. Sulpiride showed positive results in four of five cases of acute delirium fits, and in four of five cases of hypochondria, showing the new drug effective in treating psychosomatic disturbances, depressive states of disposition, and the phenomenology of delirium. Background material is included substantiating that sulpiride produces a noticeable arrhythmic and antiulcerative action in experiments with dogs and rats respectively. Sulpiride has also been tested in cases of nervous depressions and neurasthenic, psychasthenic syndromes, as well as in child psychiatry with extremely encouraging results in all fields. The effectiveness of sulpiride in schizophrenic cases depends on the length and the symptomology of the disease, having its best results in cases of abulia, negativism, and apragmatism. Of particular importance is the complete absence of harmful side-effects from sulpiride use. 8 references. (Author abstract modified)

151304 Goda, G. Clinique universitaire de Psychiatrie de Geneve, Switzerland /Study on the effect of a reserpine-like substance (tetrabenazine) followed by the administration of a tricyclic antidepressant (desmethylimipramine) on normal subjects./ Etude de l'effet d'une substance reserpine-like (tetrabenazine) suivie de l'administration d'un antidepresseur tricyclique (desmethylimipramine) chez des sujets normaux. **Encephale (Paris). 61(6):485-509, 1972.**

A comparative double-blind study concerning the interaction of tetrabenazine (1mg/kg) and desmethylimipramine (0.5mg/kg) i.m. was conducted with normal subjects. The hypothesis ad-

vanced is that the effect of the tricyclic antidepressants is potentialized by reserpine or reserpine like substances. The interaction of these substances on the normal subject is not well known. Based on electroencephalographic, neurovegetative and behavioral tests, the research analyzed statistically the parameters of the 34 experimental examinations performed in two successive stages. The outcome of the research partially confirms the theoretical model resulting from tests performed on animals, as well as the potentializing effect of the above substances when used in association. The correction or inversion of the effects of tetrabenazine (mobilization of the cerebral monoamines) by a tricyclic antidepressor (blocking the recapture of the catecholamines), observed in animals, is found to be dose dependent in man. 25 references. (Author abstract modified)

151305 Haker, O.; Nassi, G.; Cohn, D. Psychiatric Hospital 'Yehuda Abarbanel', Bat-Yam, Israel /Evaluation of the therapeutic spectrum of entumine-chloro-2-11-dibenzothiazepine. Study based on 50 clinical cases observed./ Evaluation du spectrum therapeutique de l'entumine - chloro-2-11-dibenzothiazepine. Etude se basant sur 50 observations cliniques. **Encephale (Paris). 61(6):550-559, 1972.**

The efficacy of a new neuroleptic was studied in 50 patients, most of them suffering from schizophrenia. The research pointed out the therapeutic spectrum of the entumine-chloro-2-11-dibenzothiazepine which covers such symptoms as state of negation, motor excitation, aggressiveness, anxiety, delirious content, and autism. Administered in association with another neuroleptic (during the experimental treatment Majeptil was used) a considerable increase in the potency of both medicines was ascertained. It is necessary to maintain a selective control of the cardiovascular functions when the drug is administered and to adjust doses so as to prevent any intellectual and motor inhibition. 8 references.

151689 Dupont, E.; Hansen, E.; Melsen, S.; Pakkenberg, H.; Holm, P. Dept. of Neurology, Municipal Hospital, University of Arhus, Copenhagen, Denmark Treatment of Parkinsonism with a combination of levodopa and the decarboxylase inhibitor Ro 4-4602 (a comparison with levodopa treatment alone). **Acta Neurologica Scandinavica (Supplement) (Kobenhavn). 48(51):115-117, 1972.**

The effect of levodopa (670mg/day) and decarboxylase inhibitor Ro 4-4602 (167mg/day) was studied in 30 parkinsonian patients for 4 months. An overall improvement was expressed as the reduction in pretreatment total Webster score (64%). Side-effects included severe nausea and dizziness (1 patient), intermittent nausea (2), transient vomitus (2), and involuntary movements (15). The main side-effects were dose dependent. Seven patients presented no side-effects. A retrospective comparison of these results with results obtained in a comparable group of 55 parkinsonian patients treated with levodopa alone (4g/day) during 4 months indicated no difference in the overall clinical improvement expressed in percentage reduction of the initial Webster score. The tolerance to the combined therapy was better than to the levodopa treatment alone with regard to nausea and vomitus. No difference was found in frequency of involuntary movements. The optimal dose was reached four times faster with the combination than with levodopa alone. 6 references.

151947 Tjandra, J.; Setyonegoro, R. Kusumanto. no address Preliminary report treatment with RO 5-3350 on ambulatory neurotic patients. **Djiwa Madjalah Psikiatri (Indonesian Psychiatric Quarterly, Djakarta). 5(2):97-102, 1972.**

A trial is reported of a new drug, RO 5-3350, a benzodiazepine derivative recently introduced by Roche Laboratories, on 195 patients of the outpatient clinic RSTM/RKUI, Djakarta and Dharmawangsa Kebajoran-Baru, Djakarta. The effectiveness of the drug is shown in severe neurosis. In spite of some side-effects which in most cases subsided spontaneously within a few days, the drug is well tolerated. The diagnostic categories included: anxiety neurosis, psychophysiologic reaction, obsessive-compulsive reaction, reactive or neurotic depression, phobic reaction, conversion reaction, transient situational disorder, personality disorder, and unspecified neurosis.

152210 Birkett, D. P.; Hirschfield, W.; Simpson, G. M. Bergen Pines County Hospital, Paramus, NJ Thiothixene in the treatment of diseases of the senium. **Current Therapeutic Research. 14(12):775-779, 1972.**

The effects of thiothixene were investigated in two groups of psychogeriatric patients at two separate hospitals (26 patients in all), with a diagnosis of senile psychosis or psychosis due to arteriosclerosis. Patients were started at a dosage of 2mg/day, which was increased at 2-week intervals

to 12mg. Evaluation methods included the Brief Psychiatric Rating Scale, global evaluation, and The Crichton Rating Scale. Both studies were preliminary and open, thus no firm conclusions can be drawn about the relative efficacy of the study drug. Thiothixene produced notable improvement in rating scales and global evaluation. The absence of side-effects and symptoms associated with lowering of blood pressure were noteworthy. Significant changes occurred in emotional withdrawal, conceptual disorganization, unusual thought content, communication, and orientation. Results suggest that thiotixene may be beneficial in treatment of psychogeriatric disorders. 6 references.

156012 Prutting, John. New York, NY Treatment of enuresis. **Journal of the American Medical Association. 225(5):315, 1973.**

Treatment of nocturnal enuresis in children with a psychostimulant, imipramine hydrochloride (IH), is questioned. IH was compared only to an inactive placebo. Comparison of IH with other less harmful anticholinergic agents such as belladonna, atropine or propantheline bromide would be more significant. IH is helpful in the treatment of enuresis associated with depression, but should not be used unless some definitive effect beyond its anticholinergic effect can be demonstrated.

156359 Satija, D. C.; Advani, G. B.; Sharma, G. N.; Agrawal, S. M. Dept. of Psychiatry, Jawaharlal Nehru Medical College, Ajmer, India A double blind clinical trial of the new hypnotic 'Mandrax'. **Indian Journal of Psychiatry (Madurai). 14(4):417-421, 1972.**

A double-blind clinical trial of the hypnotic, Mandrax (Methaqualone Diphenhydramine) with Medomin (Heptabarbitone) was performed with 40 patients (20 males, mean age 36.16 years and 20 females, mean age 31 years). The patients were suffering from insomnia as a result of various psychiatric ailments. For induction of sleep, Mandrax was better than Medomin when sleep induction is considered; however, the two drugs were similar with respect to duration of sleep, type of sleep, and incidence and frequency of side-effects. 11 references. (Author abstract modified)

156739 Lieberman, Abraham N.; Derby, Bennett M.; Feigenson, Joel; Goodgold, Albert; Nesbitte, Joanne; Resurreccion, Ernesto C.; Valdiva, Francisco. New York Univ. Medical Center, 566 First Avenue, New York, NY 10016 MK 486 and levodopa in treatment of parkinsonism. **Diseases of the Nervous System. 34(4):167-171, 1973.**

The efficacy of alpha methyldopahydrazine (MK 486) and levodopa in treatment of parkinsonism was investigated with 10 patients. The patients had achieved less than optimal response to only levodopa over 2 years of treatment. Levodopa was reduced by 73% from 3700mg/day to 1000mg/day. MK 486 averaged 125mg/day. Five patients were significantly improved on MK 486 and levodopa in combination over levodopa alone. In three patients improvement was attributed to elimination of side-effects resulting from the actions of high circulating dopamine on structures outside the central nervous system: nausea, palpitations. In two patients it was attributed to the combination effect. All five continued on the combination. The other five patients were not significantly improved while on the combination and only one continued. Abnormal involuntary movement on MK 486 and levodopa in combination, were, in most patients, more marked than on levodopa alone. While this effect, attributable to increased central catecholamines, was more marked, other effects, attributable to increased central catecholamines (behavioral abnormalities) were less marked. 16 references. (Author abstract modified)

156835 Mitford, Jessica. no address Experiments behind bars: doctors, drug companies, and prisoners. **Atlantic Monthly. January: 64-73, 1973.**

The medical research that is performed on prisoners is criticized. Since World War II, a number of guiding principles and codes of ethics have been developed by the medical profession to govern the conduct of experiments: 1) human experiments must be based on prior laboratory work and research on animals; 2) experiments that are of no scientific value or that subject humans to unnecessary pain and risk are to be avoided; 3) the informed consent of the subject must be obtained. Drug testing on human beings occurs in three stages: in phase one, the new compound is tried out for effectiveness and possible toxic properties on a small group of normal, healthy individuals. If these survive without serious side-effects and the drug appears promising, it is passed into phase two, in which several hundred normal subjects are given the compound and the dosage is gradually increased until the experimenter decides the limit of safety has been reached. Once this is established, the drug is ready for phase three, in which it is given as medication to pa-

tients to test its efficacy as a remedy for illness. Prisons today furnish virtually the entire pool of subjects for phase one testing. Over the past 10 years, a brisk traffic in human subjects for drug company experimentation has grown up in the California Medical Facility at Vacaville, a prison specifically designated for men deemed by the authorities to be in need of psychiatric treatment. 2 references.

159396 Giurgea, C. U C B Pharmaceutical Division, 68, rue Berkendael, 1060 Bruxelles, Belgium The 'nootropic' approach to the pharmacology of the integrative activity of the brain. **Conditional Reflex. 8(3):169, 1973.**

In the proceedings of the 13th meeting of the Pavlovian Society, Piracetam (U C B 6215), an atoxic compound was presented as the first of a new psychotropic class for which the term nootropics is proposed. Piracetam in dosages up to g/kg does not interfere with autonomic functions, general behavior, level of wakefulness, limbic system, etc.;but which in dosages such a mg/kg does improve several learning and memory abilities, protects against experimental amnesiac agents, facilitates EEG recovery after severe hypoxia and also facilitates interhemispheric transfer (transcollal evoked potential and learned behavior. Discussion is made on the basis of the particular neuropharmacology as well as on the available biochemical and human clinical correlations to emphasize the selectivity of this compound on telencephalic integrative mechanisms.

159473 Meyer, James A.; Kurland, Kenneth Z. Letterman Army Medical Center, San Francisco, CA 94129 Controlled evaluation of flurazepam hydrochloride, a new nonbarbiturate hypnotic. **Military Medicine. 138(8):471-474, 1973.**

Onset and duration of sleep provided by flurazepam hydrochloride, a benzodiazepine derivative and nonbarbiturate hypnotic, were compared with the characteristics of sleep obtained with placebo capsules in postsurgical orthopedic patients with insomnia. Findings reveal that the superior results of the hypnotic over those with the placebo are statistically significant. Superiority was demonstrated by both subjective and objective evaluation. 11 references.

159775 Liston, Edward H.; Levine, Martin, D.; Philippart, Michel. California School of Medicine, Center for the Health Sciences, 760 Westwood Plaza, Los Angeles, CA 90024 Psychosis in Fabry disease and treatment with phenoxybenzamine. **Archives of General Psychiatry. 29(3):402-403, 1973.**

The first known reported occurrence of psychosis in Fabry disease is presented. It is observed that treatment with the alpha-adrenergic blocking agent phenoxybenzamine hydrochloride (Dibenzyline) was related quite unexpectedly to remission of psychotic signs and symptoms on two separate occassions. The findings suggest that the drug acted as an antipsychotic agent in this patient. Whether the mechanism of action was related to it sympatholytic properties, neuroleptic effects, or to other unknown actions is not clear. 11 references. (Author abstract)

161265 Matthews, W. B.; Rushworth, G.; Wakefield, G. S. Dept. of Clinical Neurology, Churchill Hospital, Headington, Oxford OX 3, 7LJ, England Dimethothiazine in spasticity. **Acta Neurologica Scandinavica (Kobenhavn). 48(5):635-644, 1972.**

The effect of dimethothiazine on spasticity was studied in 42 adult patients with spasticity arising from cerebral or spinal lesions. Intravenous injection reduced spasticity in 30 patients, with marked reduction in 15. In 20 patients, some functional benefit was apparent. However, the use of the drug was limited by the effects of prolonged high dosage medication with a phenothiazine derivative, and by the release of flexor spasm. 15 references. (Author abstract modified)

166874 no author. no address Annual ECDEU meeting -- abridged proceedings. **Psychopharmacology Bulletin. 9(1):32-50, 1973.**

Clinical psychotropic drugs were evaluated in the proceedings of the annual Early Clinical Drug Evaluation Units' (ECDEU) meeting. Topics discussed included: application of triiodothyronine to severely disturbed euthyroid children, several reports on tardive dyskinesia, the effects of catecholamine related agents, applications of chlorpromazine, and treatment of schizophrenics with propranolol or thiothixene. Lithium use was discussed in treatment of disorders other than mania. 29 references.

166878 no author. no address Early clinical drug evaluation units reports. **Psychopharmacology Bulletin. 9(1):67-81, 1973.**

Evaluative studies on drug treatment in five cases conducted by the Early Clinical Drug Evaluation Units are presented. The patient's

historical background, a record of the drugs and dosages received, side-effects and six rating scales for scoring changes in symptoms or behavior were reviewed. The summaries are computer generated from data and include the following investigations: 1) effects of loxapine in the treatment of schizophrenia compared to chlorpromazine; 2) the efficacy and toxicity of GPA 1714 (Geigy) in the treatment of adults with psychotic depressions and psychoneuroses and depressive states; 3) the efficacy and toxicity of pipothiazine in the treatment of chronic schizophrenics; 4) the efficacy of chlormezanone was compared to chlordiazepoxide in the treatment of chronic adults with diagnoses of psychoneuroses anxiety states; and 5) the efficacy of piperacetazine in the treatment of schizophrenics was investigated and compared to thioridazine.

08 DRUG TRIALS IN SCHIZOPHRENIA

150347 Neal, W. Lewis; Munden, Kenneth J. Tennessee Psychiatric Hosp. and Inst., Outpatient and Community Services, Memphis, TN Lithium carbonate in the ambulatory, chronically psychotic patient. **Journal of the Tennessee Medical Association. 66(3):215-216, 1973.**

The use of lithium carbonate in the outpatient treatment of six chronic schizophrenic patients is described. All patients were individually evaluated, diagnosed, and treated by at least three psychiatrists prior to the outpatient experience. The lithium carbonate was administered, and Mellaril was given for the first 5 days of treatment. The patients were examined after 8 days and assigned a maintenance dosage of lithium carbonate based on the serum level of the lithium. Five of the six patients demonstrated dramatic improvement after 1 week, and Mellaril was discontinued entirely. All six patients exhibited complete resolution of their acute psychotic processes. The value of lithium carbonate in clinical practice in ambulatory patients, and its potential effectiveness in patients previously considered unresponsive, is emphasized.

150351 Singh, Man Mohan; Smith, James M. Clinical Psychopharmacology Unit, Bronx State Hosp., Bronx, NY 10461 Sleeplessness in acute and chronic schizophrenia -- response to haloperidol and anti-parkinsonism agents. **Psychopharmacologia (Berlin). 29(1):21-32, 1973.**

The effects of haloperidol, trihexyphenidyl, and benztropine on sleep behavior were investigated in 10 acute and seven chronic schizophrenics in two separate double-blind studies. Haloperidol was given during 4-month periods, with the acute patients receiving two concomitant 3-week courses of benztropine and the chronic patients receiving a single concomitant 2-week course of trihexyphenidyl. Marked, predominantly early night sleeplessness was present in all patients; the acute subjects were more sleepless than the chronics, but their patterns of sleeplessness were similar. The degree of sleeplessness seemed related to total psychopathology, hallucinations, and thought disorder. No relationship was found with affective symptoms. Haloperidol reduced sleeplessness promptly and normalized sleep. Concurrently administered antiparkinsonian medication seemed to have the opposite effect in the chronic patients. These data do not support the theory that haloperidol is a stimulating neuroleptic, and the general distinction made between activation and sedative neuroleptics is questioned. It is suggested that the stimulating effect noticed with some neuroleptics may be attributable to the antiparkinson drugs often used. 20 references. (Author abstract modified)

150432 Campbell, Magda; Fish, Barbara; David, Raphael; Shapiro, Theodore; Collins, Patrick; Koh, Celedonia. New York Univ. Med. Ctr., 550 First Ave., New York, NY 10016 Response to triiodothyronine and dextroamphetamine: a study of preschool schizophrenic children. **Journal of Autism and Childhood Schizophrenia. 2(4):343-358, 1972.**

Ten schizophrenic children and two autistic children aged 3 to 6 years were given triiodothyronine (T3), a hormone with CNS effects and stimulating properties, in a controlled study; dextroamphetamine was used as a control. Four additional patients participated in the study: two had organic brain syndromes, and two were nonpsychotic children with withdrawing and hyperkinetic reactions. Optimal daily doses of T3 ranged from 12.5to 75mcg, with 1.25 to 10mg dextroamphetamine daily doses. Results of nonblind evaluations showed marked improvement on T3 in 11 children, slight in three, and deterioration in one. Blind ratings indicated statistically significant improvement in overall symptomatology. While dextroamphetamine yielded poor responses in all diagnostic categories, T3 had antipsychotic and stimulating effects.

This drug is viewed as a potentially effective agent in the treatment of childhood schizophrenia. 32 references. (Author abstract modified)

150434 Waizer, Jonas; Polizos, Polizoes; Hoffman, Stanley P.; Engelhardt, David M.; Margolis, Reuben A. Psychopharmacology Res. Unit, State Univ. of New York, Downstate Med. Ctr., 450 Clarkson Ave., Brooklyn, NY 11203 A single-blind evaluation of thiothixene with outpatient schizophrenic children. **Journal of Autism and Childhood Schizophrenia. 2(4):378-386, 1972.**

A group of severely ill schizophrenic children were administered thiothixene dosages of 10 to 24mg daily in a single-blind study to assess the effectiveness of this agent in improving behavior, motor activity, coordination, affect, range of communication and other characteristic symptoms. The Ss, 17 boys and one girl, ranged in age from 5 to 13 years, lived at home with their families, and were hyperkinetic and uncontrollable. Laboratory tests showed essentially normal levels, while a battery of tests showed that the children performed at moderately to severely retarded levels. Few side-effects were noted as a result of the drug. Treatment lasted 12 weeks, with positive results evident by the fourth week. Results showed significant improvement in all indices except in language development. Because of the effectiveness of thiothixene, broad safety margin, and relative absence of side-effects, this drug appears to be a promising antipsychotic agent in the treatment of schizophrenic children on an outpatient basis. 5 references.

150643 Denber, Herman C. B. Department of Psychiatry and Pharmacology, University of Florida, Gainesville, FL 32601 /AHR-2277: a new major neuroleptic with minimal neurological effects./ AHR-2277: un nouveau neuroleptique majeur avec effets neurologiques minimes. **Annales Medico Psychologiques (Paris). 1(1):131-138, 1973.**

Eighteen schizophrenic patients (16 male; 2 female) were studied to evaluate the effects of a new butyrophenone, 4'-fluoro-4(4-(p-fluorobenzoyl)piperidine) butyrophenone HCl (AHR-2277). A gradually increasing dosage (3 to 30mg) of AHR-2277 was administered to the subjects over a 70-day period. Results indicate that AHR-2277 has a rapid clinical action after small dosages with minimal side-effects. Schizophrenic symptoms were reduced or controlled in 17 of the 18 cases, with only a light extrapyramidal effect observed. 5 references. (Author abstract modified)

150665 Orzack, Maressa Hecht; Branconnier, Roland; Gardos, George. Boston Univ. School of Medicine, Psychiatry Dept., 80 E. Concord St., Boston, MA 02118 CNS effects of propranolol in man. **Psychopharmacologia (Berlin). 29(4):299-306, 1973.**

The central effects of propranolol and its antipsychotic properties were investigated in six chronic schizophrenic patients who had shown no improvement over many years under standard chemotherapy. Visual potentials and background electroencephalograms taken from the scalps of the patients while on increasing doses of propranolol (330mg/day to 675mg/day) initially showed increased activation. With the higher dose, the activation disappeared and the cortical activity returned to placebo level. Peripheral beta blockade, once established, remained constant. The results suggest that the effect on the central nervous system is due to direct action, rather than peripheral changes. 24 references. (Author abstract modified)

150745 Namyslowska, Irena. Klinika Psychiatryczna, Akademia Medyczna, ul. Nowowiejska 27, Warsaw, Poland /The effect of pharmacologic treatment on association disturbances in schizophrenia./ Wplyw leczenia farmakologicznego na zaburzenia skojarzen w schizofrenii. **Psychiatria Polska (Warszawa). 6(5):539-545, 1972.**

A modified Kent-Rosanoff association test was applied before and after treatment of 77 schizophrenic patients with highschool or higher education; responses were compared to those obtained from 80 normal control subjects. The mean number of individual reactions in untreated patients was 21 as compared to 10 in the control group and the mean association frequency was significantly lower (22.8) than in controls (32.2) suggesting that these two variables adequately measure schizophrenic tendency in this test. After treatment the mean number of individual reactions decreased to 14 and the mean association frequency increased to 32.4. The mean number of most frequent reactions and mean number of repetitions of associations which represents the measure of perseverative tendency showed no statistically significant differences in these groups. It is concluded that association disorders are not a permanent feature in the thinking of schizophrenics; they appear during the acute phase of illness and respond to pharmacologic treatment. 14 references. (Author abstract modified)

150832 Villeneuve, A.; Pires, A.; Jus, A.; Lachance, R.; Drolet, A. Research Div., Hopital St-Michel-Archange, Quebec 5, P.Q., Canada A long-term pilot study of pipothiazine palmitate in chronic schizophrenia. **Current Therapeutic Research. 14(11):696-706, 1972.**

The second phase of a clinical trial to assess the effectiveness of pipothiazine palmitate as long-term maintenance treatment in 14 chronic schizophrenic patients is reported. A discussion of whether continuation of the treatment and augmentation of the doses would further improve the patients is presented. Symptomatology of these patients essentially consisted of emotional withdrawal, anergia, and poor social contact. Pipothiazine palmitate was effective as long-term maintenance treatment for the majority of the patients. It seemed to possess a good disinhibitory action in the population studied during 46 weeks and may constitute a drug of choice for chronic schizophrenics already stabilized by an oral neuroleptic medication. On a long-term basis, no noticeable improvement of delusions, hallucinations and thought disorders was observed. The increase in doses in six patients did not lead to any obvious further clinical improvement. In general best results were obtained with doses varying from 100 to 150mg intramuscularly monthly. The drug was well tolerated locally and generally by the patients, the extrapyramidal side-effects being easily corrected by the administration of an antiparkinsonian agent. A clinical review of pipothiazine sulphate, pipothiazine undecylenate and palmitate, evaluating the effectiveness, length of action and types of side-effects of the drugs, is presented. 12 references. (Author abstract modified)

150835 Shopsin, B.; Pearson, E.; Gershon, S.; Collins, P. Neuropsychopharmacology Research Unit, Dept. of Psychiatry, N.Y.U. Sch. of Medicine, New York, NY 10016 A controlled double-blind comparison between loxapine succinate and chlorpromazine in acute newly hospitalized schizophrenic patients. **Current Therapeutic Research. 14(11):739-748, 1972.**

Loxapine succinate (LOX) was compared in a controlled, double-blind fashion to a standard neuroleptic compound, chlorpromazine hydrochloride (CPZ), in newly hospitalized acute schizophrenic patients. Patients were rated using the Clinical Global Inventory (CGI), the In-Patient Multidimensional Psychiatric Scale (IMPS), Treatment Emergent Symptoms (TES), Structured Clinical Interview (SCI) and Nurses Observation Scale for In-Patient Evaluation (NOSIE). Results demonstrated that eight patients treated with CPZ were suitable for discharge at the end of a 3-week period, whereas only two patients treated with LOX could be discharged. Scores on the CGI demonstrated greater severity of illness for LOX than for CPZ patients. IMPS and NOSIE reflected improvement at study termination for both drugs. SCI profiles demonstrated that there was less significant improvement with the LOX group than with the CPZ group in overall level of pathology. Discrepancies between clinical observation and various rating devices are discussed. Clinical trials with LOX are reviewed to substantiate the existence of these discrepancies. Results of this study indicate that the question of drug efficacy in these patients is open and unresolved. Any improvement seen under LOX treatment cannot yet establish the drug as an effective antipsychotic agent in acutely ill schizophrenics. Moreover, extrapyramidal symptoms appeared more frequently with LOX than with CPZ. 10 references.

150951 Osmond, Humphry. New Jersey Neuro-Psychiatric Institute The background to the niacin treatment. **In: Hawkins, D.: Orthomolecular psychiatry: treatment of schizophrenia. San Francisco, W. H. Freeman, 1973. 697 p. (p. 194-201).**

Beginning with a double-blind trial of eight Saskatchewan patients in 1952 and subsequent followup studies, careful observation and followup of several hundred cases of niacin treated schizophrenics with a variety of statistical evaluations and the use of chemical and psychological tests have indicated that niacin and niacinamide treatment of schizophrenia can be an effective, although slow, and safe method in countering the disease. Findings further suggest that if, in addition to such other treatment as is deemed necessary, niacin were to be given to people developing schizophrenia, between 70 and 80% would become well and would stay well. 18 references.

150964 Pfeiffer, Carl C.; Iliev, Venelin; Goldstein, Leonide. New Jersey Neuro-Psychiatric Institute Blood histamine, basophil counts, and trace elements in the schizophrenias. **In: Hawkins, D., Orthomolecular psychiatry: treatment of schizophrenia. San Francisco, W. H. Freeman, 1973. 697 p. (p. 463-510).**

Histapenic and histadelic schizophrenia are described. The largest group (histapenic) is

characterized by a low incidence of allergies, a low blood histamine, and a low basophil count. The main psychiatric symptoms are thought disorder, paranoia, and sometimes hallucinations. These patients respond to the usual antischizophrenic therapy and may respond dramatically to folic acid therapy plus vitamin-B12; the folate antagonist Dilantin is contraindicated. The second type of schizophrenia (histadelic) occurs in about 20% of the outpatient population of patients and is characterized by a normal or high incidence of allergies, a high blood histamine, and a basophil count above 0.6%. Besides being schizophrenic, these patients are also obsessed with suicidal depression. While not responding well to the usual antischizophrenic therapy, they do respond to methadone, a histamine releasing agent; this can be given with diphenhydramine at bedtime as part of their sleep packet. They also respond to zinc and manganese supplementation of their diet and respond slowly to Dilantin therapy. 78 references. (Author abstract modified)

150971 Hawkins, David. North Nassau Mental Health Center, Manhasset, NY Orthomolecular psychiatry: treatment of schizophrenia. **In: Hawkins, D., Orthomolecular psychiatry: treatment of schizophrenia. San Francisco, W. H. Freeman, 1973. 697 p. (p. 631-673).**

The orthomolecular approach to schizophrenia places the patient on a medical regimen consisting of a hypoglycemic diet, prescribed rest and exercise, phenothiazines, and other ancillary medications, and megavitamins. There is a high degree of acceptability, and the approach is suitable for a wide range of applications in a variety of settings such as private practice, hospital, clinic, and halfway house. The results of a study utilizing group improvements in Hoffer-Osmond Diagnostic (HOD) scores demonstrates the effectiveness of electroconvulsive therapy, and the results of a 2-year followup study of megavitamin continuance indicates a relapse rate one half that of a control group. Patients most likely to respond to this treatment have elevated HOD scores associated with schizophrenia, or schizophrenia plus homosexuality, psychedelic drug abuse, or alcoholism. 119 references. (Author abstract modified)

151768 Karimov, R. K. Kafedra psikhiatrii Tashkentskogo instituta usovershenstvovaniya vrachey, Tashkent, USSR /Results of study of several aspects of supportive psychopharmacotherapy in schizophrenia./ Rezul'taty izucheniya nekotorykh aspektov podderzhivayushchey psikhofarmakoterapii shizofrenii. **Meditsinskiy Zhurnal Uzbekistana (Tashkent). 10:32-35, 1972.**

A study was made of 472 histories of disease and ambulatory charts and other documents of 104 rehospitalized patients with 'pure' schizophrenia. In first remission, 44.2% of the 104 schizophrenics did not receive supportive doses of neuroleptic drugs, 38.5% received varying doses on an irregular basis, and only 17.3% were administered drugs accurately and regularly. In second remission, the corresponding percentages were 60.6%, 29.8%, and 9.6%. The data indicated that the frequency with which patients rejected supportive therapy increased parallel with the increase in duration of the disease and periods of treatment with one and the same neuroleptic. Of all cases investigated, 36.5% had a negative attitude toward hospitalization, and none received neuroleptics willingly. Some histories and ambulatory charts were seen in which it was difficult to find the desired information on time, type, regularity, dosage, and effect of neuroleptic administration.

152208 Campbell, Magda; Fish, Barbara; Shapiro, Theodore; Floyd, Arthur, Jr. Children's Psychopharmacology Research Unit., Dept. of Psychiatry, New York University Medical Center, New York, NY Acute responses of schizophrenic children to a sedative and 'stimulating' neuroleptic: a pharmacologic yardstick. **Current Therapeutic Research. 14(12):759-766, 1972.**

Fifteen hospitalized children under age five, including 13 schizophrenics, were given placebo, chlorpromazine (prototype of sedative neuroleptic) and trifluperidol (prototype of stimulating neuroleptic) in an acute double-blind crossover trial designed to provide a meaningful perspective for preliminary results of new drugs used in severely disturbed children. Trifluperidol was statistically more effective than chlorpromazine and placebo, particularly among the more anergic, underactive children, since it is a less sedative neuroleptic. Chlorpromazine produced significant worsening of hypoactivity. The acute symptom changes of this impaired subgroup of schizophrenic children were similar to earlier findings on maintenance studies: they are frequently overly sedated by antipsychotic doses of clorpromazine and respond best to a less sedative neuroleptic. It is concluded that this type of

acute crossover design provides an efficient evaluation of the therapeutic effects of new drugs on severely disturbed children. 14 references. (Author abstract modified)

152708 Hamid, T. A.; Wertz, William J. 16 Nile St., Giza, Egypt, U. A. R. Mesoridazine versus chlorpromazine in acute schizophrenia: a double-blind investigation. **American Journal of Psychiatry. 130(6):689-692, 1973.**

Two chemically different phenothiazine derivatives (mesoridazine, a piperidine, and chlorpromazine, an aliphatic) were studied to determine the efficacy and safety of the compounds in controlling psychotic symptoms during a 24 hour period. A double-blind comparison of mesoridazine and chlorpromazine with 91 newly admitted, acutely psychotic patients showed that symptoms grouped in the following composites improved significantly more in the mesoridazine patients than in the chlorpromazine patients: motor activity; attitude and behavior; emotional response; and ideation and thought processes. The mesoridazine patients experienced less sedation than the chlorpromazine patients. 9 references. (Journal abstract modified)

152900 Johnson, Alonza C.; Kulkarni, A. S. Contra Costa County Hospital, Martinez, CA 94553 Piperacetazine and chlorpromazine: a comparison. **American Journal of Psychiatry. 130(5):603-605, 1973.**

Twenty six agitated acute schizophrenic patients in a state hospital received intramuscular injections of either piperacetazine or chlorpromazine. Three rating scales were used to assess the effects of the drugs. Both drugs were found to be effective in producing significant improvement in the patients. Piperacetazine appeared to be more potent than chlorpromazine. No side effects were observed. 6 references. (Author abstract)

153096 Gardos, George; Cole, Jonathan O.; Orzack, Maressa Hecht. Boston State Hospital, 591 Morton Street, Dorchester, MA 02124 The importance of dosage in antipsychotic drug administration -- a review of dose-response studies. **Psychopharmacologia (Berlin). 29(3):221-230, 1973.**

Methodologically adequate clinical dose response studies with antipsychotic compounds are reviewed. Treatment resistant schizophrenics and schizophrenics under 40, hospitalized less than 10 years, often benefit from high or very high doses of antipsychotics. Low dose treatment is to be considered for apathetic or depressed schizophrenics who are not floridly psychotic. Placebo or no medication is optimal for a hitherto not well defined subgroup. The usual clinical dose range appears to be most therapeutic for the remaining schizophrenic populations, probably including most outpatients. Methodological problems encountered in dose response studies and clinical problems in posology are discussed. 28 references. (Author abstract)

153795 Hollister, Leo E. Veterans Administration Hospital, Palo Alto, CA Optimum use of antipsychotic drugs. **In: Masserman, J., Current psychiatric therapies. New York, Grune & Stratton, 1972. 264 p. (p. 81-88), v. 12.**

The chemical structure, pharmacological properties, and clinical efficacy of antipsychotics are reviewed. Six general guidelines are presented: 1) drugs should be used primarily for treating symptoms of schizophrenia; 2) a rational choice should be made from the many available drugs based on chemical and pharmacological differences between groups; 3) high dose drugs should be used when behavioral or mood disturbances predominate and low dose, specific antipsychotics are employed where thinking disorder predominates; 4) doses should be determined by clinical signs of the patient's response, based on the amelioration of schizophrenia or appearance of extrapyramidal effects; 5) dosage should be on an indefinite basis, although brief interruptions are tolerable; and 6) the dosage form of drug should be watched to assure that the putative doses actually reach the patient. 13 references.

154170 Magaro, Peter A. Dept. of Psychology, Univ. of Maine, Orono, ME 04473 Skin conductance basal level and reactivity in schizophrenia as a function of chronicity, premorbid adjustment, diagnosis, and medication. **Journal of Abnormal Psychology. 81(3):270-281, 1973.**

Skin conductance basal level and galvanic skin response (GSR) levels in schizophrenia were examined as a function of chronicity, premorbid adjustment, diagnosis, and medication. Results idicate that basal level differences between schizophrenic subgroups or between schizophrenics and normals were mainly due to long-term institutionalization. An interaction of premorbid adjustment and diagnosis within the chronicity subgroups was also found and

discussed. The GSR differences between schizophrenic subgroups were primarily due to being on or off medication, and this was mainly evident in the premorbid adjustment grouping. The results of an examination of social censure stimulus affects were not supportive of a social censure hypothesis. 35 references. (Author abstract modified)

155055 Simpson, George M.; Lament, Richard; Cooper, Thomas B.; Lee, J. Hillary; Bruce, Robert B. Research Center, Rockland State Hospital, Orangeburg, NY The relationship between blood levels of different forms of butaperazine and clinical response. **Journal of Clinical Pharmacology. 13(7):288-297, 1973.**

The relationship between blood levels of different forms of butaperazine and clinical response was studied. In Study I loading doses of five different forms of butaperazine were administered to chronic schizophrenics, and the levels of butaperazine in the blood determined at regular intervals. Concentrate produced the highest levels, the intramuscular form produced the lowest, and the tablet form was intermediate. Some subjects showed the same response to all forms, and others showed different responses. In study II, chronic schizophrenics participated in a clinical trial utilizing the tablet and concentrate forms. Steady state blood levels were collected during the tablet and concentrate phase. At the end of the trial, patients were categorized as responders or nonresponders, and kinetic studies were done after loading doses of tablet, concentrate, and intramuscular butaperazine were given. The kinetic concentrate levels were higher than the kinetic tablet levels. However, concentrate steady state levels were lower than tablet steady state levels in those patients receiving the same dosage. The responders tended to have higher kinetic levels for the tablet and concentrate than nonresponders. 4 references. (Author abstract)

155258 Campbell, Magda; Fish, Barbara. New York University Medical Center, Department of Psychiatry, New York, New York University School of Medicine, New York, NY T3 alone in schizophrenic children. **Psychopharmacology Bulletin. 9(3):32-33, 1973.**

The stimulating effects of L-triiodothyronine (T3) on 20 preschool age retarded, schizophrenic children are discussed. All but six receive acute trials of dextroamphetamine to compare the effects of the two drugs. Behavioral and physical symptoms are analyzed. Results show marked improvement in 13 patients.

155525 Denham, John; Adamson, Leslie. St. Clement's Hospital, London, England Long-acting phenothiazines in the prevention of relapse of schizophrenic patients. **Canadian Psychiatric Association Journal (Ottawa). 18(3):235-237, 1973.**

Long acting phenothiazines are studied in the prevention of relapse of schizophrenic patients. The incidence of readmissions and the duration of hospital stay are compared in a group of chronic schizophrenic patients who had first received oral medication and then long acting injectable fluphenazine enanthate and decanoate over identical periods of time. A total 93.3% of the Ss were maintained on continuous treatment for 12 to 40 months. The readmission rate was reduced from 191 to 50, and the time spent in hospital from 8713 to 1335 days. 11 references. (Author abstract modified)

156563 Nurowska, Krystyna; Welbel, Leszek Klinika Psychiatryczna, Instytut psychoneurologiczny, Pruszkow, Poland /Comparative trial of imiclopazine, TPN-12 pimozide and trifluperidol in schizophrenia./ Porownanie wynikow leczenia schizofrenii preparatami: imiklopazyna, imagotan, pimozyd, trojfluoroperidol. **Psychiatria Polska (Warszawa). 7(1):57-63, 1973.**

The effectiveness of imiclopazine, TPN-12 pimozine and trifluperidol was compared in 139 patients with chronic schizophrenia including 85 with paranoid, 43 residual, 5 catatonic, 3 cyclic, and 3 simple schizophrenia. None of these patients had previously responded to treatment with other drugs; the average duration of disease was 7 years. Imiclopazine (initially 5 to 10mg intramuscularly, then 15 to 20mg orally for 4 weeks followed by a 4 to 8mg maintenance dose for additional 6 weeks) induced improvement in 62% of patients. It brought about sedation of agitated patients within 2 to 3 days while its effect on inactive and motor inhibited patients was evident only after 2 to 3 weeks of therapy. It had a beneficial effect on both axial and productive symptoms of schizophrenia. TPN-12 (initially 50mg daily i.m.,increased to 150 to 200mg and then orally 450 to 500mg for 4 weeks and gradually reduced to 150 to 200mg for 6 to 8 weeks) resulted in improvement of 70% of patients. It was more effective than imiclopazine in patients with motor inhibition and had a more pronounced effect on hallucinations and delusions. Pimozine (5 to 8mg

daily for 4 to 6 weeks, then 2 to 3 mg for following 4 to 6 weeks) caused improvement in 61% of patients. It was the most effective of all the drugs tested in motor inhibited patients with considerable schizophrenic defect. Trifluperidol (0.5to 1.0mg initially increased to 2.5to 3mg for 4 weeks, then decreased to 1.0mg for additional 6 weeks) was least effective, giving only slight to moderate improvement in 70% of patients, and caused more frequent and more severe extrapyramidal symptoms. 15 references. (Author abstract modified)

156564 Pogorzelski, Wojciech; Rogiewicz, Andrzej; Wojdyslawska, Irena. Klinika Psychiatryczna, Akademia Medyczna, Lodz, Poland /Effects of TPN-12 Sandoz in schizophrenia./ Dzialanie preparatu TPN-12 w schizofrenii. **Psychiatria Polska (Warszawa). 7(1):65-68, 1973.**

TPN-12 Sandoz was used in 19 schizophrenic patients including 14 with paranoid, 2 with paranoid catatonic, 1 with catatonic, 1 with anancastic and 1 with paranoid involutionary psychosis. All except one had previously been treated with other neuroleptic drugs; the duration of the disease varied between 1-33 years. The therapy was started by intramuscular injection of 50 to 100mg 2 to 3 times daily for 10 days and continued by oral administration of 400 to 650mg/day for 3 to 4 weeks depending on availability of the drug. Marked improvement was achieved in 5, moderate in 9, slight in 2; no change or worsening was noted in 3 patients. Best results were obtained in patients with paranoid schizophrenia with marked psychomotor agitation, hallucinations and delusions. The drug was generally well tolerated in 400mg/day doses by the majority of patients, and was better tolerated than other neuroleptics by 11 patients. Extrapyramidal syndromes occurred in 58% but were usually slight and responded to treatment with antiparkinsonism agents. 4 references. (Journal abstract modified)

156567 Marcjan, Kazimierz; Pietruszewska, Irena; Wolak, Ewa. Klinika Psychiatryczna, Akademia Medyczna, Warszawa, Poland /Effects of long-acting fluphenazine./ Wyniki stosowania flufenazyny o przedluzonym dzialaniu. **Psychiatria Polska (Warszawa). 7(1):79-86, 1973.**

Long acting fluphenazine was administered intramuscularly in 12.5to 25mg dose at 7 to 14 day intervals for an average of 11 injections to 86 schizophrenic patients. The great majority had been repeatedly hospitalized; the duration of disease varied between 1 and 15 years with an average of 7 years. Two forms of the drug were used: enanthane fluphenazine, which was given to 20 patients including 18 with paranoid schizophrenia; and fluphenazine decanoate, which was administered to 66 patients including 56 with paranoidal, 2 paranoidal catatonic, 1 catatonic, 1 simple and 1 schizoaffective schizophrenia. Good improvement was achieved in 30.3% of patients treated with fluphenazine enanthane, good to excellent in 45.5% of those receiving fluphenazine decanoate. The intensity and frequency of side-effects consisting mainly of extrapyramidal syndrome and hyper or dyskinesia were greater in patients treated with enanthane (85%) than those receiving decanoate (78.8%). No deleterious effect on parenchymatous organs or blood pressure were noted. The advantages and disadvantages of using long acting neuroleptics in the management of psychotic patients is discussed and it is concluded that fluphenazine is a potent neuroleptic agent and a valuable adjunct in the therapy of both acute and chronic schizophrenia. 24 references. (Journal abstract modified)

156589 Afonskaya L. S.; Zaikonnikova I. V.; Frolova, A. M.; Chudnovskiy, V. S. Kafedra psikhiatrii Kazanskogo meditsinskogo instituta im. S. V. Kuranshova, Kazan, USSR /On the use of armine in the quality of psychostimulating drugs in schizophrenia./ O primenenii armina v kachestve psikhostimuliruyushchego sredstva pri shizofrenii. **Zhurnal Nevropatologii i Psikhiatrii imeni S.S. Korsakova (Moskva). 72(12):1882-1887, 1972.**

Armine therapy in 57 schizophrenic patients with adynamic and apathic abulic states is described. It is emphasized that the clinical effect of armine is significantly different from that of adrenergic stimulants and thymoleptics. It was established that the preparation stimulates the patients' activity without a euphorizing effect. The best results were observed in static subdepressive states of patients with continuous and attack like progressive schizophrenia. 9 references. (Author abstract modified)

156643 Abuzzahab, F. S. Imov. of Minnesota Medical School, Minneapolis, MN 55455 Treatment of acute schizophrenia with molindone. **Journal of Clinical Pharmacology. 13(5-6):226-233, 1973.**

The neuroleptic activity of 3-ethyl-6,7-dihydro-2-methyl-5-morpholinomethyl-indole-4-(5H)-one hydrochloride (molindone) was investigated in a population of acutely disturbed schizophrenics including exacerbations in chronic schizophrenia. In

a group of 38 hospitalized males and females, molindone in doses up to 225mg/day helped 70% of those who completed the 8-week study (20 patients). It appeared to be an active neuroleptic agent producing statistically significant improvement on 7 out of 18 Brief Psychiatric Rating Scale scales and on 4 of the 13 Minnesota Multiphasic Personality Inventory scales. Although it was felt that molindone is clinically more effective in the depressed than the excited type of schizophrenic, statistical analysis failed to confirm this belief. The most prominent treatment emergent symptoms were drowsiness, rigidity, tremor, akathisia, xerostomia, and blurred vision. Molindone was well tolerated without inducing any significant abnormal laboratory findings during the 8-week investigation. 27 references. (Author abstract modified)

156741 Adamson, L.; Curry, S. H.; Bridges, P. K.; Firestone, A. F.; Lavin, N. I.; Lewis, D. M.; Watson, R. D.; Xavier, C. M.; Anderson, J. A. E. R. Squibb and Sons, Ltd., Regal House, Twickenham, Middlesex, England Fluphenazine decanoate trial in chronic in-patient schizophrenics failing to absorb oral chlorpromazine. **Diseases of the Nervous System. 34(4):181-191, 1973.**

Of 97 chronic inpatient schizophrenics who were considered nonresponsers to oral chlorpromazine, 39 were shown to have significantly lower plasma levels of unmetabolized chlorpromazine following oral administration of the drug, compared with the levels on the day of a single intramuscular dose. Of these patients, 37 were entered in a double-blind study to compare the efficacy of orally administered chlorpromazine with intramuscular fluphenazine decanoate. On the basis of Brief Psychiatric Rating Scale assessments, it is concluded that the clinical response to fluphenazine decanoate is significantly better than the clinical response to orally administered chlorpromazine. 13 references. (Author abstract)

156892 Floru, L.; Zurborn, R. Psychiatr. Univ.-Klinik, Rhein. Landeskrankenhaus, Bergische Landstr. 2, 4 Dusseldorf, W. Germany /Hospital testing of an oral long-term neuroleptic: Penfluridol./ Stationare Erfahrung mit einem oralen Langzeit-Neuroleptikum: Penfluridol. **Medizinische Welt (Stuttgart). 24(15):600-603, 1973.**

Tests of the long-term neuroleptic psychopharmalogical agent Penfluridol R16341 (diphenylbutylpiperidin derivate related chemically to Pimozide ORAP and Fluspiriline IMAP) involving 42 patients (92.8% psychotics with schizophrenic symptomatology) shows Penfluridol to be well adapted to long-term treatment of subacute cases of schizophrenia. With a dosage of 10 to 55mg weekly, very good results (complete remission of symptoms) were noted in 33% of the cases, good results in 24%, improvement of some symptoms in 28%, ambiguous improvement in 22.85%, and deterioration in a single case (2.15%). Side-effects include initial lassitude in 50%, usually lasting not longer than 24 hours; initial bodily irritation (itching or stretching sensations reported by three patients); vegetative side-effects (accomodation disturbances 16.5%, hyperhydrosis 12%, hyposalivation with dryness of mouth 28%, one allergic reaction); and extrapyramidal reactions, most seriously an initial akathisia in 40.5% of the patients, which can be somewhat relaxed by Dexetimide. Overdose can lead to motor hypokinesis and rigor (25.4%). Motor hyperkinesis (minor to midrange tremor of finger) which occurred in 16 patients, may be treated with Dexetimide. (Author abstract modified)

156939 Ota, K. Y.; Kurland, A. A. Spring Grove State Hospital, Maryland Psychiatric Research Center, Catonsville, MD A double-blind comparison of haloperidol oral concentrate, haloperidol solutabs and placebo in the treatment of chronic schizophrenia. **Journal of Clinical Pharmacology and New Drugs. 13(2 and 3):99-110, 1973.**

The effectiveness of haloperidol in a soluble tablet form in maintaining control of the symptomatology of hospitalized chronic schizophrenic patients who were first stabilized on haloperidol oral concentrate was evaluated in a double-blind study. The 54 male and female patients, ranging from 22 to 58 years old, were placed on a drug free period of 1 week and were then adequately maintained for at least 1 month with haloperidol oral concentrate prior to the double-blind treatment phase. The patients either received placebo, haloperidol soluble table or haloperidol oral concentrate. Psychometric data support the superiority of haloperidol oral concentrate and soluble tablets over placebo; no differential effects between the two active forms were obtained. There are no significant differences of side effects among the three groups. The soluble tablet form seems to be effective for a long-term treatment schedule, with few complications. The soluble tablets provide the greatest ease and accuracy

of drug administration. 12 references. (Author abstract modified)

158587 Wyatt, Richard Jed. Laboratory of Clinical Psychopharmacology, NIMH, Saint Elizabeths Hospital, Washington, DC 20032 DMT -- a possible relationship to schizophrenia. (Unpublished paper). Washington, D.C., NIMH, 1973, 3 p.

The possible role of N,N-dimethyltryptamine (DMT) in schizophrenia was investigated to determine whether or not it can be considered an endogenous hallucinogen causative of the disorder. GLC-mass spectrometry, as well as administration of DMT to humans and animals, did not provide sufficient data to indicate a causative relationship. DMT is present in human tissue, although it is metabolized extremely quickly, while animal data indicates that unlike other hallucinogenic agents, tolerance to DMT does not seem to develop. Some interesting psychological aspects of DMT were observed, but little evidence of visual hallucination or distortions was found, and Ss became internalized and at times definitely paranoid. (Author abstract modified)

158779 Baker, Jon Derry. East Texas State University Relationship of clinical and demographic variables to community adjustment of schizophrenic outpatients on chemotherapy. (Ed. D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-14284 HC$10.00 MF$4.00 90 p.**

A composite score from outpatient's self-evaluation, staff evaluation, and family evaluation by the Personal Adjustment and Role Skills questionnaire was used to examine demographic and clinical variables associated with successful versus unsuccessful community adjustment of schizophrenic outpatients who received chemotherapy at a community mental health clinic. The data indicate that no significant differences exist between adjustment and (1) diagnostic subclassification, (2) chemotherapy duration, (3) inpatient hospitalization, (4) setting of present chemotherapy treatment, and (5) electroshock treatment. There were no significant differences between adjustment and (1) ethnic group, (2) educational achievement, (3) age level, and (4) marital status. Findings indicate that women have significantly greater community adjustments than men. (Journal abstract modified)

159450 Crow, T. J.; Gillbe, C. Psychiatry Department, University Hospital of South Manchester, Manchester M20 8LR, England Dopamine antagonism and antischizophrenic potency of neuroleptic drugs. **Nature (London). 245(140):27-28, 1973.**

A study to disprove the hypothesis that ability to block central dopamine receptors is related to the therapeutic potency of neuroleptic drugs in schizophrenia is presented by showing that two drugs which are equally effective therapeutically are widely discrepant in their actions on central dopaminergic mechanisms. The results demonstrate a clear dissociation between the effects of thioridazine and chlorpromazine on central dopaminergic and other neural mechanisms. Taken in conjunction with evidence that the two drugs are equipotent against the symptoms of schizophrenic illnesses, the results seem incompatible with the hypothesis that a simple dopamine receptor blockage underlies the general therapeutic efficacy of the neuroleptic drugs. 24 references.

160216 Galfi, B.; Benson, Katalin; Grynaeus, T. Arbeitstherapeutisches Institut, Pomaz, Ungarn, Germany /Results of the effects of fluspirilene on chronic schizophrenic patients undergoing occupational therapy./ Erfahrungen mit dem anhaltend wirkenden Neuroleptikum Fluspirilene bei arbeitstherapeutisch beschaftigten chronisch Schizophrenen. **International Pharmacopsychiatry (Basel). 8(1-2):37-59, 1973.**

Sixty chronic schizophrenic patients undergoing occupational therapy were examined for 5 months to test the effects of fluspirilene in increasing doses until they reached the optimal individual dosage. Clinical observations were parallelled with psychological tests analyzing the changes of attention, remembrance, thinking, association, reaction times, perceptual functions and those of the galvanic skin response. The effects of fluspirilene are characterized by an extreme regularity regarding the antipsychotic effect and occurrence of side effects. Twenty seven patients showed improvement. The clinical improvement was in close correlation with the better performance on the psychological tests. It is suggested that the drug reestablishes the psychical balance by normalizing the hyperarousal, so that the narrowing of attention and the disturbances of the perceptual functions ceased or at least diminished. 48 references. (Author abstract)

161388 Doust, J. W. Lovett; Huszka, L. Department of Psychiatry, University of Toronto,

Research Section of Psychophysiology, Clarke Institute of Psychiatry, Toronto, Canada Influence of some psychoactive drugs on mineral metabolism in man. **International Pharmacopsychiatry (Basel). 8(3):159-172, 1973.**

The influence of psychoactive drugs on mineral metabolism was measured when a MAOI drug, phenelzine and two amino acids, tryptophan and glycine were administered serially to a group of patients with chronic schizophrenia for 3 week periods. Measurements of body weight, of four electrolytes and two steroids were made at regular intervals. The research design included control of each variable and allowed for the presence in some patients only of tranquilizing drugs having antiadrenalin and antiserotonin effects and of an anticholinergic drug. Analyses of variance were employed to evaluate the results. It was found that introduction of phenelzine led to an increase in plasma sodium and a fall in magnesium. Tryptophan feeding brought about increases in plasma sodium, potassium, magnesium and calcium and a decrease in plasma corticoids and urinary 17-ketosteroids. Phenothiazine and butyrophenone tranquilizing drugs increased plasma potassium and the plasma corticoids. 17 references. (Author abstract)

162169 Judd, Lewis L.; Goldstein, Michael J.; Rodnick, Eliot H.; Jackson, Newton L. P., Jr. Department of Psychiatry, University of California, San Diego, PO Box 109, La Jolla, CA 92037 Phenothiazine effects in good premorbid schizophrenics divided into paranoid-nonparanoid status. **Archives of General Psychiatry. 29(2):207-211, 1973.**

Good premorbid schizophrenics, divided on the basis of paranoid - nonparanoid status, were studied under a double-blind design for differential responses to a phenothiazine medication while receiving drug and placebo regimens. Autonomic responsivity levels measured by skin resistance and related to drug status did not distinguish between groups. Significant findings in interactions between paranoid - nonparanoid status and the drug - placebo conditions were found only on cognitive and perceptual measures. The paranoid patient on placebo status consistently performed poorly on clinical ratings and experimental tasks. Nonparanoid Ss showed only mild to moderate improvement while receiving medication, and performance of these Ss receiving placebo was often similar to that of the paranoid Ss given drugs. 12 references. (Author abstract modified)

162171 Gardos, George; Cole, Jonathan O. Boston State Hospital, 591 Morton Street, Boston, MA 02124 The dual action of thiothixene. **Archives of General Psychiatry. 29(2):222-225, 1973.**

The clinical literature of thiothixene in adult schizophrenic patients was reviewed to correlate optimal dose with chosen indices of the dual action hypothesis, which suggests that antipsychotic compounds may show a stimulating effect at low doses and an antipsychotic effect at higher doses. Activation and side-effects of CNS stimulation correlated highly with each other and with dosage; a significant negative regression line on optimal dose was seen. Overall efficacy did not correlate with dosage or with activation - stimulation, but showed the presence of an antipsychotic component at least equal to standard antipsychotics. The method seems suitable to test the hypothesis in other antipsychotic compounds. 40 references. (Author abstract modified)

162365 Serafetinides, E. A. Dept. of Psychiatry, School of Medicine, UCLA, Los Angeles, CA Voltage laterality in the EEG of psychiatric patients. **Diseases of the Nervous System. 34(3):190-191, 1973.**

The effects of drug treatment (with haloperidol, clopenthixol, chlorpromazine, and molindone) and clinical improvement on the EEGs of psychiatric patients were studied. The data were drawn from two previous studies collectively involving 75 male and female chronic schizophrenic patients. Over the course of the drug treatments, especially with chlorpromazine, voltage laterality shifts in the EEG were observed. Such shifts were consistent, with the left side of the brain gaining voltage as a result either of drug administration or clinical improvement. These observations concur with those of a previous trial. It is felt that the relatively infrequent registering of the phenomenon is probably due to methodological reasons. 6 references. (Author abstract modified)

162646 Johnson, D. A. W.; Freeman, Hugh. Crumpsall Hospital, Manchester 8, England Drug defaulting by patients on long-acting phenothiazines. **Psychological Medicine (London). 3(1):115-119, 1973.**

Drug defaulting by patients on long-acting phenothiazines (LAP) was investigated. Results indicate that although the frequency of discontinuing LAP was appreciably less than reported in most surveys on oral medications, it remained a

problem. Causes of patient discontinuation of LAP include: patient refusal, side-effects, failure of administration of the regime, and patients losing contact with the medical services by moving to other districts. 16 references. (Author abstract modified)

162869 Singh, Man Mohan; Smith, James M. Clinical Psychopharmacology Unit, Bronx State Hospital, Bronx, NY Kinetics and dynamics of response to haloperidol in acute schizophrenia -- a longitudinal study of the therapeutic process. **Comprehensive Psychiatry. 14(5):393-414, 1973.**

A longitudinal study of the therapeutic process of the kinetics and dynamics of response to haloperidol in acute schizophrenia is investigated. Data indicates that changes in social avoidance behavior might be a primary indicator of neuroleptic action. Analysis of the residual deficits after 6 months of treatment suggests that the patients had considerable problems in initiating and structuring social relations and organizing abstract thoughts. A developmental hypothesis is proposed to explain these observations. 16 references. (Author abstract modified)

163332 McLaughlin, B.; Kulkarni, A. S. 4029 Glenwood Dr., Fort Worth, TX 76101 Comparative evaluation of injectible chlorpromazine and piperacetazine. **Psychosomatics. 14(4):220-221, 1973.**

Injectible forms of two antipsychotic agents, piperacetazine and chlorpromazine, were compaired using blinded ratings for their effectiveness in 26 agitated, acute schizophrenic Ss. The following evaluation methods were used: Target Symptom Rating Scale; Brief Psychiatric Rating Scale and Clinical Global Impression. Significant improvement, with absence of Treatment Emergent Symptoms, was noted for both drug treatment groups. For clinical equivalence, piperacetazine required a smaller milligram dose than chlorpromazine. 5 references. (Author abstract)

163333 Donlon, Patrick T. South Area Mental Health Services, 2252 45th St., Sacramento, CA 95817 The therapeutic use of diazepam for akathisia. **Psychosomatics. 14(4):222-225, 1973.**

The therapeutic use of diazepam for akathisia was studied in 13 schizophrenic outpatients who developed akathisia while receiving neuroleptics. Antiparkinson medication and diphenhydramine hydrochloride did not offer relief from symptoms. Diazepam was successful in remitting symptoms in 10 patients within 3 days. Three patients experienced drowsiness and diazepam was withdrawn. No side effects were observed in the patients who were relieved of their symptoms. Further investigation of the therapeutic use of diazepam for drug induced extrapyramidal syndromes is recommended. 18 references. (Author abstract)

163680 Gallant, D. M.; Bishop, G.; Steel, C. A.; Bishop, M. P. Tulane University School of Medicine, New Orleans, LA Loxapine: a six-month evaluation in severely ill schizophrenic patients. **Current Therapeutic Research. 15(4):205-209, 1973.**

Effects of loxapine, a dibenzoxazepine compound, were evaluated in 40 chronically hospitalized schizophrenics over a 6 month period. Findings confirm antipsychotic effect and relatively low toxicity. Results suggest that therapeutic management of the chronic schizophrenic patient may be achieved with this drug at dosage levels which produce relatively fewer uncomfortable side-effects than are typically encountered with effective dosages of prototype antipsychotic drugs. The optimal dosage range for severely ill schizophrenics appears to be between 100mg and 200mg daily. 6 references. (Author abstract modified)

163754 Angrist, B.; Sathananthan, G.; Gershon, S. Department of Psychiatry, New York University Medical Center, 550 First Ave., New York, NY 10016 Behavioral effects of L-dopa in schizophrenic patients. **Psychopharmacologia (Berlin). 31(1):1-12, 1973.**

As part of an investigation of the possible role of dopaminergic mechanisms in some psychoses, the behavioral effects of administration of L-Dopa to schizophrenic patients was assessed. L-Dopa was administered in dosages of 3 to 6g/day to 10 such patients who had been maintained off neuroleptic drugs for approximately a week. Behavioral worsening occurred in all 10 patients. Three showed nonspecific stimulation while the remaining seven showed a combination of both stimulation and worsening of preexistent symptoms or the development of new symptomatology. 30 references. (Author abstract)

163997 Hoffer, Abram. Saskatchewan, Canada Orthomolecular therapy. **Psychiatric Opinion. 10(2):6-10, 1973.**

A strong attack against the opponents of orthomolecular therapy is presented, and the remedial effect of the therapy is asserted. The term orthomolecular was described by Pauling as the provision of nutrients at optimum concentration at the right time in the correct portion of the body. The irrational aspects of the debate over the effectiveness of orthomolecular therapy are enumerated. It is claimed that the therapy is most successful with acute schizophrenic patients, that it reduced the readmission rate and improved long-term prognosis. The vitamin is relatively nontoxic, being safer than tranquilizers and antidepressants. Two phases of treatment are described: administration of three grams of nicotinamide or nicotinic acid, and adherence to a sucrose restricted diet, administration of ECT's plus appropriate chemotherapy for patients who cannot follow Phase I. 5 references.

163998 Cott, Allan. Gracie Square Hospital, New York, NY Medical orthodoxy and orthomolecular psychiatry. **Psychiatric Opinion. 10(2):12-15, 1973.**

Opponents of orthomolecular medicine are rebutted, and its history and successes are reported. In 1952 Drs. Hoffer and Osmond began treating schizophrenic patients with 3 to 18grams per day of Vitamin B3 and decided that the dosage could be increased to 30grams daily if necessary. Ascorbic acid, thiamine, riboflavin, and most importantly, niacin or niacinamide, were important vitamins in the treatment. Experimentation has shown that the therapy is most effective with acute cases of schizophrenia. Active intervention must include use of megavitamins, psychotropic drugs, proper diet and mineral supplements. Longer treatment prevents relapse more effectively than short treatment. Niacin was found to potentiate the action of tranquilizers and other drugs. The realization that schizophrenia is basically a physical illness produced primarily by disturbances in the biochemical balance of the body and determined by genetic disposition has cleared away much confusion and myth regarding schizophrenia.

163999 Ban, Thomas A. Division of Psychopharmacology, McGill University, Montreal, Canada The niacin controversy: the possibility of negative effects. **Psychiatric Opinion. 10(2):19-24, 1973.**

The current status of nicotinic acid treatment in schizophrenia is reviewed. It is pointed out that in all the therapeutic trials in the Canadian Mental Health Association Collaborative Studies completed to date, nicotinic acid had no therapeutic effect or had a negative effect in both newly admitted and chronic schizophrenic patients. It is also pointed out that none of the suggested biochemical hypotheses could be sufficiently substantiated to serve as the rational basis for nicotinic acid treatment. Or, in other terms, even if a biochemically homogenous small group could be identified on the basis of NAD deficiency or excessive methylation process, the chances are slim that such a group would show a beneficial therapeutic response to nicotinic acid. Nevertheless, without the results of such studies, the therapeutic potential of nicotine acid in the schizophrenias cannot be considered fully evaluated. 25 references. (Author abstract)

164217 Carder, Scott L.; Snibbe, John. University of Southern California Medical Center, Los Angeles, CA Outpatient management of chronic schizophrenics with fluphenazine enanthate (Prolixin Enanthate): a clinical evaluation. **Current Therapeutic Research. 15(9):589-598, 1973.**

Problems, manageability and safety in using fluphenazine enanthate, a long-acting, injectable phenothiazine, in outpatient chronic schizophrenics with a history of unreliable drug use were investigated. Of 30 patients who began the drug as inpatients, 50% remained in the program and 13% improved on global evaluation of psychiatric symptoms. The patient, a visiting nurse and patient's families judged the patient's condition as satisfactory in over 80% of home followup visits. Most common side-effects noted by the nurse were drowsiness, slurred speech, blurred vision, restlessness and shuffling gait. Manageable parkinsonian side-effects were most commonly noted in the clinic. No local reactions or hypertensive, autonomic or allergic reactions were reported. Findings indicate that fluphenazine enanthate can be used on an outpatient basis for chronic psychotics. Long-term maintenance clinics for further evaluation are recommended 17 references. (Author abstract modified)

164714 Klein, Donald F.; Rosen, Bernard. Research Department, Hillside Division, Long Island Jewish-Hillside Medical Center, Glen Oaks, NY 11004 Premorbid asocial adjustment and response to phenothiazine treatment among schizophrenic inpatients. **Archives of General Psychiatry. 29(4):480-485, 1973.**

The relationship between premorbid asocial adjustment and response to phenothiazine treatment

was studied. The sample consisted of 88 hospitalized schizophrenic patients who were randomly assigned to either placebo or chlorpromazine and treated on a fixed dosage increment schedule, under double-blind conditions for 6 weeks. Results support the hypothesis that response to phenothiazine treatment differs between asocial and nonasocial patients. Chlorpromazine had consistently positive effects in reducing psychopathology among nonasocial patients. However, among asocial patients chlorpromazine showed both positive and negative effects. Chlorpromazine's negative effects were significantly greater among asocial as compared to nonasocial patients, while its positive effects were significantly greater among nonasocial than asocial patients. 31 references. (Author abstract)

165564 Shaffer, Ron Washington Post, 1515 L Street, NW, Washington, DC 20005 Mental patients used in testing drugs. **Washington Post September 2:A1, A10, 1973.**

Malpractice is charged in a program at Western State Hospital, Staunton, Virginia, in which schizophrenic mental patients are used as guineapigs for drug tests, in violation of federal laws. Charges include failure to appoint a qualified review committee as a primary safeguard against abuses in drug experimentation. Specifically cited are: omission of program monotoring, flawed commitment procedures, inefficient record keeping, and violations of patients' rights in refusing commitment. The study was designed to test effects of combinations of the major tranquilizers with antidepressants on chronic schizophrenics. Patients' rights to confidentiality and their competence to grant permission for such experiments are questioned and discussed.

165621 Weston, M. J.; Bentley, R.; Unwin, A.; Morris, M.; Harper, M. A. Department of Psychological Medicine, University of Queensland, Brisbane, Queensland 4029, Australia A comparative trial of haloperidol and thioridazine: management of chronic schizophrenia. **Australian and New Zealand Journal of Psychiatry (Carlton, Austrailia). 7(1):52-57, 1973.**

The therapeutic effects of haloperidol and thioridazine on 86 hospitalized chronic schizophrenic patients are reported. The patients were randomly assigned to haloperidol and thioridazine groups and were treated following a flexible dosage, double-blind procedure for 12 weeks. Prior to the active drug regime, a 4 week period of placebo medication was initiated for all patients. The average daily dosage of thioridazine and haloperidol was 330mg and 5.3mg respectively. Each patient received anti-Parkinsonian medication in the form of orphenadrine hydrochloride. Prior to the administration of the psychotropic drugs and during the treatment period, all patients were rated on a symptom status and ward behavior rating scale. Patients receiving haloperidol tolerated the drug well and showed a significant degree of improvement on the rating scales. There appears to be no clinical evidence of any advantages in using thioridazine rather than haloperidol as a psychotropic agent when treating the chronic schizophrenic patient. 17 references. (Author abstract modified)

165728 Nishizono, Masahisa; Matsunaga, Bunpo; Karasuyama, Noboru; Tominaga, Takemori; Inuzuka, Tatsumi; Sakaguchi, Nobuki; Sakurai, Tsunao. Kyushu University, Fukuoka, Japan Symposium: new therapeutic approach to schizophrenia. **Kyushu Neuro-psychiatry (Fukuoka). 18(1):7-25, 1972.**

A discussion on new therapeutic approaches to schizophrenia is presented from the 13th Symposium of the Society of Psychiatric Neurology on November 4, 1971. Topics discussed include therapeutic approaches to schizophrenia from the psychopharmacological point of view, from the viewpoints of dynamic psychiatry, behavioral therapy, and community psychiatry. A series of discussions which follow these subjects is provided.

165803 Leonard, Robert B.; Kulkarni, A. S. Terrell State Hospital, Terrell, TX Piperacetazine injectable: a controlled study. **Clinical Medicine. 80(5):32-33, 1973.**

Treatment with piperacetazine injection appears to be as effective as that with chlorpromazine injection in the management of aggressive uncontrollable schizophrenic patients. Twelve patients on the test drug, piperacetazine, and 10 on the reference drug, chlorpromazine, responded to the treatment and were capable of receiving oral antipsychotic medication. In terms of milligrams, piperacetazine is more potent than chlorpromazine in clinically equivalent doses. The clinical improvement was associated with statistical improvements in the Target Symptom, the Brief Psychiatric Ratings, and Clinical Global Impression evaluations of the patients. 2 references. (Author abstract)

166715 Abuzzahab, F. S. Department of Psychiatry, University of Minnesota, Minneapolis, MN 55455 Long-term use of molindone in schizophrenics. **Journal of Clinical Pharmacology. 13(10):422-426, 1973.**

The long-term use of molindone in schizophrenics was studied. Thirteen schizophrenic patients were treated for a period of up to 1 year with doses of up to 225mg daily. The absence of drug deposition in the eye as determined by slit lamp examination coupled with the findings that urinalysis, hemogram, and laboratory chemistry values remained within normal limits indicated the relative safety of molindone in this small group of schizophrenic patients. 16 references.

166718 Simpson, George M.; Haher, E. J.; Herkert, E.; Lee, J. Hillary. Research Center, Rockland State Hospital, Orangeburg, NY A controlled comparison of metiapine and chlorpromazine in chronic schizophrenia. **Journal of Clinical Pharmacology. 13(10):408-415, 1973.**

A small-sample, double-blind, cross-over comparison of metiapine and chlorpromazine was carried out in an attempt to obtain further information about the types of side-effects, behavioral response, and relative efficacy of the two preparations. Both compounds effectively reduced psychotic symptomatology. Differences in efficacy between metiapine and chlorpromazine were small but, in general, they favored metiapine. It is suggested this may have been related to the assumption of equipotency, thus, higher dosages of chlorpromazine might have eliminated the difference. Both drugs produced drowsiness and hypotension, but more extrapyramidal side effects were seen with metiapine than with chlorpromazine. No other drug differences were noted. 7 references.

166721 Rivera-Calimlim, Leonor; Castaneda, Lina; Lasagna, Louis. Department of Pharmacology and Toxicology, University of Rochester School of Medicine, Rochester, NY Effects of mode of management on plasma chlorpromazine in psychiatric patients. **Clinical Pharmacology and Therapeutics. 14(6):978-986, 1973.**

Plasma chlorpromazine was assayed in schizophrenic patients and their clinical response to the drug was evaluated. Results suggest that schizophrenic patients with negligible plasma levels of chlorpromazine are not likely to improve clinically. Most patients who showed significant clinical improvement achieved high plasma levels (150-300ng/ml). Those who manifested toxicity in the form of tremors and convulsions were shown to have very high plasma levels (750-1,000ng/ml). A factor in patients who did not achieve adequate plasma levels despite moderate doses of chlorpromazine was the administration of trihexyphenidyl. Interpatient and intrapatient data suggest that trihexyphenidyl tends to lower plasma levels of chlorpromazine. 21 references. (Author abstract modified)

166733 Itil, T. M.; Saletu, B.; Gannon, P.; Arat, M.; Hsu, W. Missouri Institute of Psychiatry, University of Missouri School of Medicine, 5400 Arsenal St., St. Louis, MO 63139 Clinical and EEG investigations with CI-579 and CI-600 (quantitative pharmacoelectroencephalography and 'sleep prints'). **Behavioral Neuropsychiatry. 4&5(11-12, 1-6):61-68, 1973.**

The effects of two new compounds, CI-579 and CI-600, on central nervous system activity and on clinical symptomatology were investigated in chronic schizophrenics with symptoms of retardation and depression as well as in acute depressive patients. Quantitative pharmacoelectroencephalography demonstrated that the drug profiles of CI-579 and CI-600 were more similar to those induced by antidepressants (thymoleptics) than to those induced by major and minor tranquilizers. Both compounds, however, exhibited more desynchronized fast EEG activities (central stimulatory effects) than the tricyclic antidepressants. These effects were also associated with a decrease of deep sleep stages in digital computer sleep prints of the all night sleep process, especially after administration of higher doses. Clinical evaluations confirmed the predictive EEG findings. CI-579 showed a therapeutic effect on depressive symptoms, but caused a deterioration of schizophrenic symptomatology, probably due to the central stimulation. CI-600 produced improvement in depressive symptomatology in both depressive and schizophrenic patients. It was concluded that CI-600 might be an antidepressive drug with strong central stimulatory properties. 9 references. (Author abstract modified)

166734 Freemon, Frank R. Department of Neurology, Vanderbilt University School of Medicine, Nashville, TN 37203 Clinical pharmacology of sleep: a critical review of all-night electroencephalographic studies. **Behavioral Neuropsychiatry. 4&5(11-12, 1-6):49-60, 1973.**

Drug studies of polygraphically monitored sleep in man are reviewed. After a brief description of how these studies are performed and how sleep is divided into stages, the pitfalls of this type of research are enumerated. Particularly common errors are made in failure to observe the nonindependence of successive nights, failure to equate length of sleep on control and experimental nights, and failure to report any portion of the sleeping record less than the entire night. Despite these limitations, one area of clinical application, a better understanding of sleep producing drugs such as the barbiturates, has emerged. 84 references. (Author abstract)

166975 Sedvall, Goran; Nyback, Henrik. Neuropsykofarmakologiska sektionen, Farmakologiska institutionen, Karolinska Institutet, Stockholm 60, Sweden /Neuroleptic treatment of schizophrenia./ Neuroleptikabehandling vid schizofreni. **Nordisk Psykiatrisk Tidsskrift (Odense, Denmark). 26(6):323-340, 1972.**

The relative success of drugs used to treat schizophrenia is discussed. Preparations are broken down into seven groups; 10 tables and 3 chemical charts show results and degree of success for each drug used in combination with other types of treatment, with neuroleptics and antiparkinsonian preparations, and in psychotherapeutic and group encounter. Side-effects of the drugs are detailed. Long-term prospects are optimistic; more data will be available and certain side-effects will have been eliminated. 14 references.

166977 Borberg, Steen. Rigshospitalet, DK 2100 Kobenhavn, Denmark /Critical reflections concerning psychopharmacological treatment of schizophrenics./ Kritiske betragtninger vedrorende psykofarmakologisk behandling af skizofrene. **Nordisk Psykiatrisk Tidsskrift (Odense, Denmark). 26(6):342-347, 1972.**

Psychopharmacological treatment of schizophrenics is critically evaluated in a general discussion of psychiatry. Pharmacology is defined as a natural scientific attempt to cure disorder problems with material agents; psychopharmacology is the biological manipulation of human nature in accordance with cultural norms of thoughts and experiences, health and disorders. Use of flupenthixol, perphanazine, fluphenazine, and pimozide is discussed; psychopharmacological treatment must be accompanied by treatment which takes social behavior within the family, and at work, into consideration. 12 references.

09 DRUG TRIALS IN AFFECTIVE DISORDERS

150255 Chateau, R. Grenoble, France /A study of the treatment of reactive and neurotic depressions by a combination of amitriptyline and perphenazine./ Essai de traitement des depressions reactionnelles et nevrotiques par une association amitriptyline-perphenazine. **Therapeutique (Paris). 48(1):67-69, 1972.**

Mutaspline (25mg amitriptyline and 2mg perphenazine) was used in the treatment of 36 cases of atypical depression of a reactive type. The depression was associated with familial or professional problems, visceral disease, or neurotic depression. Thirty six ambulatory patients were directed to take 2 to 4 pills per day. The results were evaluated as follows: eight excellent; 15 good; four moderate; and nine no improvement. Side-effects included somnolence, constipation, and mouth dryness, but most of the patients tolerated the treatment well. The product appears to be suitable for long-term therapy.

150437 Sugerman, A. Arthur. Carrier Clinic, Belle Mead, NJ Lithium in manic-depressive illness. **Journal. 4(3):5-10, 1972.**

The literature on various uses of lithium is reviewed, including the earlier use of lithium compounds such as lithium carbonate, lithium chloride and lithium bromide prescribed variously for gout, and as a hypnotic and anticonvulsant. When severe poisonings and fatalities resulted in 1949, lithium preparations were withdrawn from the market, delaying needed research into lithium for 10 years. At about this same time, Cade of Australia reported effective therapy of manic-depressive illness with lithium carbonate, and since then many published reports confirmed the efficacy of this product, especially in mania; its antidepressant action appears much less effective. Results also showed that lithium alone is not the treatment of choice in highly active manic patients; phenothiazines or haloperidol should be used initially. As a prophylactic agent against recurrent attacks of depression or mania, lithium shows promise. However, its use as a prophylactic has not yet been approved by the Food and Drug Administration, and further studies with careful double-blind experiments are needed to confirm its validity and to compare its effectiveness with other drugs. 32 references. (Author abstract modified)

150438 Quitkin, Frederic M.; Rifkin, Arthur; Klein, Donald F. Long Island Jewish-Hillside Medical Center, Hillside, L. I., NY Literature review and proposal for lithium prophylaxis studies. **Journal. 4(3):11-15, 1972.**

The effects of lithium action as a preventive agent in manic-depressive psychosis is surveyed through a review of the literature. Recent studies have shown lithium to be an effective therapeutic agent, especially for treatment of mania and schizoaffective disorders. Questions remain as to whether lithium is of greater prophylactic value than tricyclic antidepressants in unipolar patients; whether there is a potentiation of prophylactic value by maintaining patients on both lithium and imipramine; and whether increasing blood level of lithium in depressive patients has an antidepressant effect. Controversy has been generated by the frequent use of open studies and the ethical problems involved in placing patients on placebo when therapeutic agents are available. A series of double-blind studies are proposed, using a large number of patients from four psychiatric hospitals to compare lithium, imipramine and placebo for preventing relapse of unipolar depression. Three additional studies are also contemplated to determine the effects of lithium and other agents alone and in combination, for unipolar and bipolar patients. 26 references.

150644 Denber, Herman, C. B. Dept. of Psychiatry and Pharmacology, University of Florida, Gainesville, FL 32601 /1766 CERM: a new antidepressant with rapid action./ Le 1766 CERM: un nouvel antidepresseur a action rapide. **Annales Medico Psychologiques (Paris). 1(1):138-143, 1973.**

Twelve clinical experiments were conducted on 11 depressive mental patients to determine the antidepressive action of 1766 CERM, chlorhydrate of 2-(3-trifluoromethyl) phenyl 4-isopropyltetrahydro 1,4 oxazepine. Results indicate that 1766 CERM has a rapid therapeutic effect usually within 24 to 48 hours, but never exceeding 6 days. There is a positive control of psychosomatic symptoms without side-effects. However, findings do not support the use of 1766 CERM therapy in cases of schizophrenia or psychotic depression. (Author abstract modified)

150645 Jarret, R.; Giraud, J.; Tristan, M.; Alliez, M. J. Institute de Psychiatrie, Marseille, France /Reflections on a 3-year treatment of 120 patients with a new antidepressant./ Reflexions sur trois annees d'utilisation d'un antidepresseur original. **Annales Medico Psychologiques (Paris). 1(1):143-153, 1973.**

CERM-1766, a new antidepressant, was administered to 120 mental patients during a 3-year therapeutic program. Subjects' symptoms included endogenous depression, psychogenic depression, psychasthenic depression and atypical depression. Results indicate that 1766-CERM has a rapid thymoanaleptic effect based on inhibition and depression control. The most prominent side-effect is fatigue; this sedative effect is still being interpreted in experimentation on neurotic and melancholic depression. (Author abstract modified)

150689 Maletzky, Barry M. Dept. of Neuropsychiatry, U.S. Lyster Army Hospital, Fort Rucker, AL Treatable violence. **Resident and Staff Physician. 19(2):40-44, 1973.**

A new treatment using diphenylhydantoin (Dilantin) is proposed for those people prone to episodic dyscontrol, violent behavior stemming from a particular hidden brain dysfunction. Successful treatment of this kind of violent patient with Dilantin has been chronicled in work at the University of Oregon Medical School, the Fort Rucker Mental Health Clinic, and various rural health clinics in Alabama. Upon minimal or even no provocation, these patients lose control, wrecking property and directing violence against anyone in their way. Storms may be preceded by a feeling of impending loss of control, a vague buzzing in the head, hyperactivity, or a nauseous feeling. They are often followed by a headache, long-lasting torpor and attacks of remorse. Patients view the attacks as completely alien and claim to have little or no memory of their actions. Administering the diazepoxide congeners can precipitate an attack. Most pass a quick neurological exam easily, but a careful exam often reveals left - right ambivalence, dysdiadokokinesis, mild ataxia. astereognosis, dysgraphesthesia, anomia, minimal dysphasia, perceptual reversals, and minor recent - memory impairments. Intracortical EEG recording and special drug activating procedures have now revealed focal epileptic activity in many patients. Treatment with Dilantin has resulted in remarkable improvement in 80% of such individuals with a dose of 100mg three times daily. The patients became better able to control their outburts. Most patients may be afflicted with a variant or form of temporal lobe epilepsy. Evidence suggests that such patients have small nonexpanding lesions of limbic structures.

150744 Zakowska-Dabrowska, Teresa; Strzyzewski, Wlodzimierz. Klinika Psychiatryczna AM, ul. Szpitalna 27/33, Poznan, Poland /The action of Noveril on the bioelectric activity of the brain./ Wplyw Noverilu na czynnosc bioelektryczna mozgu. **Psychiatria Polska (Warszawa). 6(5):523-528, 1972.**

The EEG patterns of 27 patients with endogenous depression were studied before, on the 20th day, 40th day and after conclusion of treatment with Noveril. Before treatment normal patterns were found in 13 out of 27 patients. Changes in EEG during treatment consisted predominantly in synchronization of alpha activity (13 out of 18 patients who improved clinically), intensification of pathological changes existing prior to treatment and appearance of paroxysmal potentials and slow wave activity (12 out of 18 improved patients). These modifications in EEG are similar to those observed during treatment with other thymoanaleptic drugs such as imipramine. It is stressed that pathologic EEG changes during treatment are no indication for interruption of therapy since they disappear after conclusion of treatment. EEG changes which are indicative of the sensitivity of cerebral biolectric activity to the action of the drug should be regarded as a favorable prognostic sign. 16 references. (Author abstract modified)

150746 Rybakowski, Janusz. Klinika Psychiatryczna, Akademia Medyczna, ul. Szpitalna 27/33, Poznan, Poland /Lithium carbonate therapy in endogenous depression./ Proby leczenia litem zespolow depresyjnych endogennych. **Psychiatria Polska (Warszawa). 6(5):547-550, 1972.**

Lithium carbonate in 900 to 1500mg daily doses (0.6-1.2mEq/l serum concentration) was administered for 20 consecutive days to 8 women with endogenous depression. Of these 4 were unipolar and 4 were in depressive phases of manic-depressive illness. Complete clinical remission was obtained in all patients with the unipolar form (aged 50-54 in initial phase of involution). Of those with bipolar depression one patient showed marked improvement, two slight improvement and one patient did not respond to treatment with this drug. The drug was well tolerated except for transient nausea. 16 references. (Author abstract modified)

150748 Bartoszewicz, Slawomir; Czerwinski, Andrzej; Strzyzewski, Wlodzimierz; Lisowska, Jadwiga. Klinika Psychiatryczna, Akademia Medyczna, ul. Szpitalna 27/33, Poznan, Poland /Usefulness of combined pharmacological treatment in endogenous depressive syndromes./ Uwagi na temat przydatnosci skojarzonego leczenia farmakologicznego endogennych zespolow depresyjnych. **Psychiatria Polska (Warszawa). 6(5):557-561, 1972.**

A total of 24 patients with endogenous depression including four in the depressive phase of manic-depressive psychosis were treated for an average of 35 days with a combination of a thymoanaleptic (imipramine, amitriptyline in half the usual dose) and a neuroleptic drug (thioridazine, maximum 150mg per day). Disappearance of the various depressive syndromes was achieved in 21 cases (88%). In two out of the four with manic-depressive illness, the depressive phase changed into the manic phase. The majority of patients showed improvement between the 5-10 day of treatment; maximum effect was noted after 4 weeks. Anxiety was the most rapidly controlled symptom. Side-effects were minimal. Laboratory tests revealed normal hepatic function, normal transaminase activity and no change in serum proteins. It is stressed that the advantage of such a combination therapy is the use of lower doses of the respective drugs over a shorter period than that usually required when an antidepressive drug is used alone. 18 references.

150798 Brown, William T. Dept. of Psychiatry, Univ. of British Columbia, Vancouver 8, B.C., Canada The use of lithium carbonate in the treatment of mood disorders. **Canadian Medical Association Journal (Toronto). 108(6):742-744, 749-751, 1973.**

The use of lithium ions in the treatment of manic states is discussed. Lithium is possibly the only specific drug treatment available for the major psychoses and has met with enthusiasm in England, Scandinavia, Australia, and, more recently, in Canada, and the United States. A number of the published papers on the subject are not sufficiently comprehensive to provide guidance for even its empiric use; some lack the necessary controls and design to permit comparisons with other studies. Some clinicians with wide experience of lithium therapy do not maintain laboratory control of patients by ordering serum lithium determinations but rely entirely on clinical judgment in establishing drug schedules. This is not advised if one has little experience with lithium therapy because of the possible side-effects and toxicity. 26 references. (Author abstract)

150845 Post, Felix. Bethlem Royal Hospital and Maudsley Hospital, London, England Paranoid disorders in the elderly. **Postgraduate Medicine. 53(4):52-56, 1973.**

Paranoid disorders in the elderly (paranoid hallucinosis, schizophreniform illness, and schizophrenia) occur in four clinical situations: acute brain syndrome, depressive illness, early stages of chronic brain syndrome, and chronic illness without demonstrable brain changes or depression (senile schizophrenia or late paraphrenia). In most cases, these respond equally well to treatment with the major tranquilizers, but drug therapy does not influence the progress of any underlying cerebral or depressive condition. Most elderly patients respond to small or only moderately large doses of major tranquilizing drugs; hence, starting dosages should be low, building up to higher dosages each week over 2 or 3 weeks (e.g.,thioridazine, 50mg daily the first week, 100mg daily the second week, 200mg daily the third week). Once hallucinations cease and delusional ideas are no longer voiced spontaneously, dosages should not be increased further. In this way, neurologic side-effects are avoided, and antiparkinsonism drugs are unnecesary. One month after remission has been achieved, the lowest drug dosage at which the patient remains symptom free should be determined. 4 references.

151264 Taddei, M.; Kull-Padovani, G. Ospedali Neuropsichiatrici Provinciali di Firenze, Florence, Italy /Results obtained from 51 cases of depressive syndromes treated with desipramine by slow phleboclysis./ Risultati ottenuti su 51 casi di sindromi depressive trattate con desipramina per fleboclisi lenta. **Riv. Sper. di Freniatria e Med. Legale delle Alien. Ment. (Reggio Emilia). 96(6):1701-1710, 1972.**

A clinical report on the positive results of desipramine, a new tricyclic antidepressant, in the treatment of depressive syndromes is discussed. Of the 51 patients tested, 44 (86.4%) responded well to therapy without suffering serious side-effects. The efficacy of the drug was evident between the tenth and twenty first day. In terms of speed of patient reaction, therapeutic effects are better achieved intravenously than orally. Desipramine counteracts psychomotor retardation, periods of depressive moods, anxiety, and loss of initiative; it produces no bad side-effects except slight urinary difficulties usual in tricyclic usage and mild skin rash easily treated with cortisone. Based on these results it is concluded, that desipramine administered intravenously constitutes a powerful therapeutic agent for various depressive states, especially those in which inhibitory actions and psychomotor retardation are marked. The possibility of combining desipramine with other tricyclics or anxiolitics and neuroleptics makes the new drug extraordinarily flexible in its application. 8 references. (Author abstract modified)

151265 Freni, S. Clinica Psichiatrica dell'Universita di Milano, Padiglione di Guardia 2a del Policlinico, Milan, Italy /Observations on the use of lithium salts in association with psychotropic drugs./ Osservazioni sull'impiego delle associazioni di sali di litio con psicofarmaci. **Riv. Sper. di Freniatria e Med. Legale delle Alien. Ment. (Reggio Emilia). 96(6):1711-1720, 1972.**

An evaluation of the wide range of psychiatric uses of lithium salts in conjunction with neuroleptics and thymoleptics in the treatment of various psychotic disturbances especially the socalled mixed or schizoaffective psychoses is presented. Lithium with antidepressants has produced positive results in treating the depressive phase of manic-depressive psychosis. The combination of antidepressants with lithium permits a reduction in antidepressive dosage and, therefore, a reduction of possibly harmful side-effects. In the maniacal phase of manic-depressive psychosis lithium alone is sufficient to counteract periods of depressive moods; in other cases, especially grave maniacal excitement, lithium with neuroleptic (haloperidol, chlorpromazine, or both) is effective, again with smaller amounts of the neuroleptic and the concomitant lessening of side-effects. Lithium and the major neuroleptics have also been successfully used to treat schizoaffective psychoses, the procedure being 15 days on lithium followed by another 15 days in combination with neuroleptics. 34 references. (Author abstract modified)

151439 Collister, Blair C. no address Recurrent mania in a young man. **Nursing Times (London). 69(14):472-473, 1973.**

The symptoms and treatment of a young man suffering from recurrent mania are presented. The effects of treatment with haloperidol, lithium carbonate, Sodium Amytal, electroconvulsive therapy and Largactil are described. Extrapyramidal side-effects associated with phenothiazines were treated with Disipal. Follow-

ing release from the psychiatric hospital, treatment with lithium carbonate to prevent further mania incidents plus regular attendance at an outpatient clinic were used to keep the patient at a functional mood level, and to help him continue to work and cope successfully.

151722 no author. no address /Prophylactic treatment for manic-depressives./ Prophylaxis for the mentally ill? **Medical World News. 14(22):35, 1973.**

The prophylactic action of lithium in both manic and depressive episodes is reported in a study of bipolar patients. A joint investigation was launched 4 years ago in 12 VA hospitals and six other hospitals, in which the first 2 years were devoted to a comparison of lithium with placebo in 205 patients recently hospitalized for mania; the second 2 years were concerned with a comparison in 122 patients recently admitted for recurrent depression, in which lithium, imipramine and placebo were the test substances. In the latter population, 44 Ss also had a history of one or more manic attacks. Of the 205 bipolar patients, 80% of those who received placebo had recurrent episodes of either mania or depression or both, whereas 42% of the lithium treated patients had additional episodes, with manic episodes predominating. In the second study, 28% of the lithium treated Ss reported depression or mania, while 77% of the other two groups suffered further episodes. The percentage of unipolar patients reporting new affective episodes in study two, however, was the same (48%) for both imipramine and lithium. This indicated the prophylactic benefits of both lithium and imipramine.

152152 Saarma, J.; Saarma, M. Lab. of Psychopharmacology, Tartu State Univ., Tartu, U.S.S.R. The action of antidepressants and convulsive treatment upon the higher nervous activity in depressive states. **Conditional Reflex. 8(1):57-60, 1973.**

In a sample of 81 depressive patients the state of the higher nervous activity (HNA) has been evaluated by means of a test battery before starting and once weekly during the treatment course by electroconvulsive therapy (ECT), amitriptyline, nialamide, and Levomepromazine. A good remission in 41 patients was achieved, and a moderate one in 40 others. Every treatment method was found to exercise quite a different action upon the HNA of the depressed patients. The excitatory process was most enhanced by amitriptyline and least by nialamide. The internal inhibition was markedly amended under Levomepromazine and nialamide and least by ECT. The equilibrium of cortical nervous processes improved most under amitriptyline. The specific pattern of action of different therapeutic methods obviously can be used as a supplementary criterion for choosing the most effective method for each patient. 9 references. (Journal abstract)

152209 Guz, Isac; Moraes, Ruderico; Sartoretto, Jose Natal. Psychiatric Clinic, Clinical Hospital of the Univ. of Sao Paulo, Sao Paulo, Brazil The therapeutic effects of lorazepan in psychotic patients treated with haloperidol: a double-blind study. **Current Therapeutic Research. 14(12):767-774, 1972.**

The effect of lorazepam (6mg per day) was studied in a double-blind procedure in 60 acutely psychotic patients to whom haloperidol was prescribed. The patients were evaluated weekly for four weeks on a target symptoms scale and on the Hamilton Anxiety Rating Scale. A global clinical assessment was also made weekly to evaluate the state of the disease in relation to the immediately preceding week, and a final global clinical assessment was made after all four weeks of therapy. Results showed a nonsignificant trend in favor of the lorazepam treated group. The benzodiazepine derivative had a beneficial effect on some individual symptoms (anxious mood, insomnia, delusions, hallucinations, fears, behavior in the ward and at interview, and agitation), and resulted in more patients improving earlier or a total of more patients improving at the end of the trial. When patients were assessed clinically in terms of the immediately preceding week, significantly more patients on lorazepam than on placebo improved in the first and last weeks of treatment. The incidence and type of side-effects were similar in both groups. The administration of lorazepam to psychotic patients treated with haloperidol permits earlier and more complete control of some symptoms and earlier global improvement of many patients. 9 references. (Author abstract)

152211 Brauzer, Benjamin; Goldstein, Burton J.; Jacobson, Alan; Steinbook, Richard. Dept. of Psychiatry, Univ. of Miami School of Medicine, Miami, FL The re-evaluation of a central nervous system stimulant: pipradrol hydrochloride. **Current Therapeutic Research. 14(12):780-784, 1972.**

Pipradrol hydrochloride, a central nervous system stimulant, marketed since 1956 for the treatment of mild depression, was compared to placebo in 58 patients under double-blind conditions. Pipradrol hydrochloride appeared to be significantly better than placebo in reducing the level of dysphoria, characterized by target symptoms of depressed mood and sadness, according to evaluations made on the Brief Psychiatric Rating Scale, the Merrell Depression Scale and Global Evaluation of Improvement. However, the drug exhibited unpleasant pharmacologic effects, i.e.,anorexia and subjective feelings of overstimulation. It is concluded that the nontherapeutic effects that pipradrol exhibits outweigh the therapeutic benefits, limiting its usefulness as a psychotropic agent. 6 references.

153090 Klerman, Gerald L. Erich Lindemann Mental Health Center, Massachusetts General Hospital, Boston, MA Study of the effect of psychotropic drugs on tension in mood states. **Massachusetts Journal of Mental Health. 3(3):37, 1973.**

The effects of psychotropic drugs on mood and muscle tension in states of depression are studied. Mood states are assessed by peripheral physiological measures including electromyography (EMG), cardiovascular indices, forearm plethysmography, and electrodermal measures. A major goal is the standardization of these psychophysiological measures in both normal controls and symptomatic volunteers with the further objective of applying these techniques to exploring drug effects in clinical populations. The measurement of EMG is utilized in the evaluation of the efficacy of antianxiety and antidepressant agents on symptomatic volunteers and a clinical population.

153121 Watt, D. C.; Crammer, J. L.; Elkes, A. St. John's Hospital, Stone, Aylesbury, Bucks, England Metabolism, anticholinergic effects, and therapeutic outcome of desmethylimipramine in depressive illness. Metabolism, anticholinergic effects, and therapeutic outcome of desmethylimipramine in depressive illness. **Psychological Medicine (London). 2(4):397-405, 1972.**

In order to test two theories of the mode of action of imipramine, 58 depressive patients were treated at two dosage levels with desmethylimipramine (DMI), its active metabolite. Clinical judgments were used to distinguish therapeutic responders from nonresponders who showed clear differences in depressive rating scales and body weight changes. Measurements of urinary output of DMI, of salivation, and of incidence of side-effects were compared in responders and nonresponders. No differences appeared in the two groups. It is concluded that the therapeutic effect of imipramine does not depend on either its anticholinergic or other action revealed by the common side-effects, and that variability of response cannot be accounted for differences in the rate of metabolism of DMI. 29 references. (Author abstract)

153613 Furlong, F. W. Clarke Institute of Psychiatry, Toronto, Ontario, Canada Lithium toxicity occurring with a 'reducing' diet. **Canadian Psychiatric Association Journal (Ottawa). 18(1):75-76, 1973.**

A case report of a patient on lithium treatment who induced lithium toxicity by embarking on a reducing diet which has an overall decrease in sodium and calories is given. The symptoms manifested were depression consisting of fatigue, indecisiveness depletion of energy and interest, and excessive sleepiness followed by euphoric episodes. 5 references.

154979 Hirayama, Masami; Miyamoto, Tadao. Department of Neuropsychiatry School of Medicine, Tokyo Medical and Dental College, Japan Clinical evaluation of imipramine-N-oxide (IPNO) in the treatment of depressive states. **Clinical Psychiatry (Tokyo). 15(5):537-546, 1973.**

The effects of imipramine-N-oxide (IPNO) on depression were studied in 27 outpatients, age 23 to 60. Ss were treated with IPNO (75 to 150mg/day) for 21-112 days. The drug proved effective and completely eliminated or significantly decreased depression in 15 patients, was noneffective in 9, and aggravated depression in two. Results indicated that the drug was more effective for endogenous depression than reactive or neurotic depression. The effects appeared within 1-2 weeks after treatment began. Side-effects such as tachycardia, lisping of the tongue, constipation, loss of appetite, nausea, decrease of salivation, glossitis, dim sight, insomnia and dizziness were observed; however, they disappeared within 2 weeks of termination of treatment.

154980 Ogura, Chikara; Okuma, Teruo; Shimoyama, Naoko; Takeshita, Hisayoshi; Abe, Kyoju. Department of Neuropsychiatry, Tottori University School of Medicine, Japan Combined thyroid (triiodothyronine)-tricyclic antidepressant

treatment in depressive states. **Clinical Psychiatry (Tokyo). 15(5):527-536, 1973.**

The effects of combined treatment of triiodothyronine (T) and imipramine (I) or amitriptyline (A) on depression were studied. Sixteen depressed patients who had not shown any response to treatment with tranquilizers or single treatment with I or A were orally treated with I (65-75mg/day) or A (75-100mg/day) and T (20-30mg/day) for 3-18 weeks. The combined treatment proved effective in various degrees in 14 patients; treatment was noneffective in one S, and aggravated depression in one. The overall rate of effectivity was 68.8%. Improvement appeared 3-4 days after treatment. Side-effects such as drowsiness, dry mouth, general fatigue, perspiration, vomiting, headache, insomnia, minor increases and decreases of blood pressure, and tachycardia were observed. 13 references.

155071 Ogura, Chikara; Ookuma, Teruo. Tottori University Medical School, Japan Recent pharmacotherapy: anti-depressants. **Diagnosis and Treatment (Tokyo). 60(1):108-112, 1972.**

The features, effects, and dosage of various antidepressants are described, such as imipramine, amitriptyline, nialamide, phenelzine, diazepam, perphenazine, and methylphenidate. Antidepressants in combination with minor and major tranquilizers enhance the antidepressant effects. Various combinations of antidepressant and tranquilizing drugs are discussed in terms of their efficacy, toxicity and synergistic effects. 10 references.

155207 Saran, B. M,; Gaind, R. Netherne Hospital, Coulsdon-Surrey, England Lithium. **Clinical Toxicology. 6(2):257-269, 1973.**

A review of the literature on lithium relating to its use, metabolism, toxic effects, and management of patients suffering from lithium poisoning is presented. The history of lithium use and its use in treatment of manic-depressive patients are covered. Metabolism including absorption, distribution, and excretion of lithium is described. Also discussed are the drug's teratogenicity, effects on the mother during parturition and treatment of lithium intoxication. 63 references.

155257 Wilson, I. C.; Prange, A. J., Jr.; Lara, P. P. North Carolina Department of Mental Health, Dorothea Dix Hospital, Raleigh, NC T3 alone in depressed adults. **Psychopharmacology Bulletin. 9(3):31, 1973.**

A double-bind, placebo controlled study of 27 women with primary unipolar depression is discussed. The women were assigned to one of three treatment groups: 1) imipramine plus placebo; 2) imipramine plus L-triiodothyronine (T3); 3) placebo plus T3. The imipramine-T3 showed a better improvement rate than the other two groups. (Author abstract modified)

155366 Segal, Robert Lloyd; Rosenblatt, Seymour; Eliasoph, Ira. Mount Sinai Hospital, Department of Medicine, 5th Avenue & 100th Street, New York 10029 Endocrine exophthalmos during lithium therapy of manic-depressive disease. **New England Journal of Medicine. 289(3):136-138, 1973.**

Serial evaluation of thyroid function in a group of patients with manic-depressive illness is reported, as measurable exophthalmos had been observed in some patients on maintenance lithium. It is concluded that lithium is associated with the development of exophthalmos in man, and speculations as to its effect are proposed. 12 references. (Author abstract modified)

155797 Man, Pang L.; Chen, C. H. Northville State Hospital, Northville, MI Rapid tranquilization of acutely psychotic patients with intramuscular haloperidol and chlorpromazine. **Psychosomatics. 14(1):59-63, 1973.**

The efficacy and safety of intramuscular haloperidol and chlorpromazine for rapid control of agitated, assaultive psychotics was tested in 31 psychotic patients during a 3 day, double-blind study. Results show that both haloperidol 5mg I. M. or chlorpromazine 50mg I.M.,administered at 30 minute intervals, bring about rapid amelioration of the severe unmanageable symptoms of hostility, agitation, assaultiveness, and mania in acutely psychotic patients. Haloperidol is recommended for initial control; it appears to be a much safer drug than chlorpromazine because of the absence of severe hypotensive reaction or hypersensitivity. 7 references. (Author abstract modified)

156134 March, James; Field, Jack; Shanley, Josette; Turner, William J. Research Division, Central Islip State Hospital, Central Islip, NY Biochemical observations during a trial of Inosiplex in senile dementia. **Journal of the American Geriatrics Society. 21(8):372-378, 1973.**

Biochemical observations during drug treatment of senile dementia were recorded. Inosiplex (Isoprinosine), a complex containing hypoxanthine riboside, was administered to seven men with senile dementia; in six it was given for 6 to 9 months, and in one for 3 months. During the first 6 months, neither further regression nor clinical improvement was noted, although five patients gained weight. Originally the study had included nine patients, but one was dropped at 1 month because of certain diagnostic features and one was dropped at 1 month because the serum uric acid level had risen. Among the remaining seven patients, the serum uric acid level in one case rose at 6 months, but in the other six the uric acid values had returned to normal at 6 months after an earlier slight rise. The urinary excretion of hypoxanthine, xanthine, guanine and uric acid accounted for about 60% of ingested hypoxanthine at 1 month and 40% at 3 to 7 months. The biochemical data are discussed in relation to some current approaches to the treatment of senile dementia. Inosiplex may prove to have a significant anabolic effect. 18 references. (Author abstract modified)

156416 Jarrett, David B.; Burrows, Graham D.; Davies, Brian. University of Melbourne Dept. of Psychiatry, Royal Melbourne Hospital, Post Office, Victoria, 3050, Australia Lithium as a prophylactic agent in recurring affective disorders. **Medical Journal of Australia (Sydney). 1(7):325-328, 1973.**

The use of lithium as a prophylactic agent in the management of a recurrent affective illness is illustrated by a study at the lithium clinic at the University of Melbourne (Australia) Department of Psychiatry. The 40 patients had a history of two or more illnesses in the previous year or at least one illness yearly for the preceding 2 years. The patients attended the clinic on either a 6-week or 8-week cycle primarily to measure the basal serum lithium level, which was kept between 0.8and 1.4mEq/l. Of the 31 patients who had no hospital admission while taking lithium eight had mild depressive illness which was successfully treated with a tricyclic antidepressant. During the 30 to 120 weeks of study, 58% of the patients did not have a significant disorder while taking lithium. Long-term lithium treatment does not prevent mood changes in all patients, but it appears to significantly alter the frequency and severity of these changes and 78% of the patients at the clinic benefited from lithium treatment. 17 references.

156565 Nurowska, Krystyna; Welbel, Leszek. Klinika Psychiatryczna, Instytut psychoneurologiczny, Pruszkow, Poland /Comparative study of the efficacy of dibenzepine, doxepine and chlorimipramine in depression./ Porownanie wynikow leczenia depresji preparatami: dibenzepina, doksepina i chloroimipramina. **Psychiatria Polska (Warszawa). 7(1):69-74, 1973.**

Dibenzepine, doxepine and chlorimipramine were used in 121 patients (60 endogenous depression, 38 neurotic depression, 20 depression with organic basis, 3 depression in the course of schizophrenia). Improvement was achieved in 76% of 58 patients treated with dibenzepine, 74% of 23 patients receiving doxepine and 64% of 40 patients given chlorimipramine. Complete disappearance of symptoms was noted in 20, 4 and 12 patients respectively. Dibenzepine was especially effective in patients with motor inhibition and gave best results of all the drugs tested in improving mood and somatic symptoms accompanying the depression. However, it caused more frequent side-effects (30% of patients) and had to be discontinued in 12% because of complications. Doxepine was less effective than the other drugs in improving mood but gave better results in depression with coexisting anxiety and restlessness. It was well tolerated over longer periods of time and its side-effects, which occurred in approximately 20% of patients were mild. Chlorimipramine was the least potent thymoleptic but had a wider range of action than the other drugs. Both agitated and inhibited patients responded to therapy with this agent. It caused mild side-effects in 30% of cases. None of the drugs caused changes in results of laboratory tests; doxepine induced an increase in weight; the other two drugs did not. 19 references. (Journal abstract modified)

156849 Bente, D.; Feder, J.; Helmchen, H.; Hippius, H.; Rosenberg, L. Psychiatrische Klinik II der Freien Universitat Berlin, Nussbaumallee 36, 1 Berlin 19, West Germany /Double-blind test of three antidepressants. Second communication: clinical comparison of noxiptiline, nor-noxiptiline and amitriptyline with the AMP system./ Doppelblindprufung von drei Antidepressiva. 2. Mitteilung: Klinischer Vergleich von Noxiptilin, Nor-Noxiptilin und Amitriptylin mit dem AMP-System. **Arzneimittel-Forschung (Aulendorf). 23(2):247-255, 1973.**

A double-blind study of three antidepressants (noxiptiline, nor-noxiptiline and amitriptyline) in-

volving 149 patients, 88 being treated and examined over the entire test period of 30 days, permitted the establishment of comparative tables of physical and psychological side-effects. Machine scorable questionnaires and the Arbeitsgemeinschaft fur Methodik und Dokumentation (AMP) system were used in the evaluation. Few side-effects other than dryness of the mouth were observed. Noxiptiline has a comparatively early onset of action, between the third and the tenth day. Nor-noxiptiline showed comparatively stronger activity stimulating effects and was particularly effective in somatic depression symptom treatment, e.g. headache. Amitriptyline was comparatively most responsible for the side-effect of mouth dryness. 5 references. (Author abstract modified)

157233 Kammerer, T.; Schweitzer-Bucher, E.; Jamet, P.; Royer, M. no address /Study of the delayed form of a synthetic antiparkinsonian agent: Akineton./ Etude de la forme retard d'un antiparkinsonien de synthese: l'Akineton. **Annales Medico Psychologiques (Paris). 1(5):688-696, 1972.**

Results of clinical experimentation with a delayed form of a synthetic antiparkinsonian agent, LM 203A or Akineton, as compared to its simple form, Akinophyl, are presented. Tests were conducted on 50 male subjects diagnosed as acute or chronic psychotics. The results show Akineton to be of interest in psychiatric therapy, and included: constancy of the delaying effect, making a single daily dose sufficient for 24 hours; about a one third reduction in the doses necessary for effective correction; and a corrective power identical to that of Akinophyl and equivalent to that of the most widely used antiparkinsonian agents.

157234 Scotto, J.-C.; Luccioni, H.; Dufour, H.; Sutter, J.-M. Clinique universitaire de Psychiatrie, Hopital de la Timone, F 13 - Marseille-5e, France /The use of clomipramine in psychiatry: reflections on four years of experiments./ Utilisation de la clomipramine en psychiatrie: reflexions sur quatre annees d'experience. **Annales Medico Psychologiques (Paris). 1(5):709-714, 1972.**

A 4 year study was conducted on the use of clomipramine (anafranil) in psychiatry. The drug was administered first to 18 depressed subjects. It was not combined with any other antidepressant, but sedative, hypnotic, and analytic cardiovascular drugs were given when necessary. This was followed by more than 100 new observations in the course of 3 years, which confirmed and completed the first impressions. Before and after comparisons were made by means of daily clinical observations. It is concluded that clomipramine is the most powerful habitual antidepressant and the most controllable of the powerful antidepressants.

158500 Fujiwara, Jiro; Otsuki, Saburo. Department of Neuropsychiatry, Okayama University Medical School, Okayama, Japan Monoamine precursors and indoleamine metabolism in depression. **Japanese Journal of Pharmacology (Kyoto). 23(Supplement):70, 1973.**

At the 46th meeting of the Japanese Pharmacological Society, depressed patients were treated with L-5-hydroxtryptophan (5-HTP) and L-DOPA, the metabolic precursors of indoleamine and catecholamine respectively, to evaluate the antidepressant effects of these precursors. Concentrations of 5-HIAA(5-hydroxyindoleacetic acid) in lumbar cerebral spinal fluid (c.s.f.)and urine were measured before administration of the precursors. Clinical improvement was observed in 9 of the 18 patients receiving L-5HTP and 4 of the 13 patients receiving L-DOPA, who were named IA type (indoleamine type) and CA type (catecholeamine type), respectively. Mean c.s.f. 5-HIAA level was lower in IA type than CA type and urinary 24 hour excretion of 5-HIAA also tended to be lower in IA type. Clear differences found in characteristics of the clinical picture between the two types are discussed. (Author abstract modified)

158972 Goldstein, Burton J.; Brauzer, Benjamin; Steinbook, Richard M.; Jacobson, Alan F. Department of Psychiatry, University of Miami School of Medicine, Miami, FL 33152 Psychotropic drug treatment of mixed anxiety and depression in nonpsychiatric office patients: expected and unexpected findings - comparing doxepin, chlordiazepoxide and placebo. **Southern Medical Journal. 66(8):892-897, 1973.**

A comparison of the efficacy of the psychotropic drugs doxepin (a tricyclic antidepressant with antianxiety properties), chlordiazepoxide (a benzodiazepine antianxiety compound), and placebo in nonpsychiatric, moderately anxious, depressed patients commonly seen by a family practitioner is presented. Patients treated with doxepin showed a reduction in the severity of anxiety and depression. Daytime drowsiness, a major complaint of middle-class patients, was alleviated by prescribing the major portion of the

daily dosage at bedtime. There was no significant improvement in patients treated with chlordiazepoxide as compared to those given placebo, and this indicates nondrug factors and their influence on treatment outcome as well as possible effects of previous medication on drug tolerance. 19 references. (Journal abstract modified)

159395 Stephens, Joseph H. The Johns Hopkins Hospital, Baltimore, MD Skin potential orienting responses in drug treated and non-drug treated depressed inpatients. **Conditional Reflex. 8(3):168-169, 1973.**

In the proceedings of the 13th meeting of the Pavlovian Society, Skin potential responses to tones of varying intensity and light measured in 42 depressed inpatients and 20 controls were discussed. Of the depressed patients, 24 had received no psychotropic drugs. Correlations between diagnosis, age, drug effect, habituation, latency, amplitude, and frequency of skin potential responses are presented. The greatest differences are seen between depressed patients and controls regardless of the type of depression or drug effects. Interactive effects of age are also of importance. (Author abstract)

159544 Tyrer, Peter. Maudsley Hospital, London, England Current status of monoamine oxidase inhibitors in psychiatry. **British Journal of Hospital Medicine (London). 9(6):795-802, 1973.**

The current status of monoamine oxidase inhibitors in psychiatry is discussed, including the differences of opinion about the type of patient most likely to respond to treatment and the fundamental disagreement concerning the correctness of their use in clinical psychiatry at all. The history of monoamine oxidase inhibitors (MAOI) is given, with therapeutic indications, genetic indications, and recent advances. Recent work suggests that patients with phobic anxiety may be particularly helped by treatment. Combined clinical and biochemical research is needed to clarify further which patients respond to treatment. 51 references. (Author abstract modified)

159776 Robinson, Donald S.; Nies, Alexander; Ravaris, C. Lewis; Lamborn, Kathleen R. Clinical Pharmacology Unit, University of Vermont, Given Bldg., Burlington, VT 05401 The monoamine oxidase inhibitor, phenelzine, in the treatment of depressive-anxiety states. **Archives of General Psychiatry. 29(3):407-413, 1973.**

The monoamine oxidase (MAO) inhibitor, phenelzine sulfate, and placebo were compared in a prospective, controlled, double-blind experiment involving 87 outpatients with features of atypical depression. Patients were treated for 6 weeks while MAO inhibition and symptom severity were monitored. By utilizing a structured depression interview, type and severity of depression were precisely assessed. Sixty patients completed the treatment period. Treatment groups were balanced for such risk factors as age, sex, severity, and type of depressive symptomatology. Improvement of phenelzine completers was greater than placebo completers for 15 out of 16 prospectively selected measures. Improvement in subscale scores for irritability, hypochondriasis-agitation, and psychomotor change was expecially marked with phenelzine. It is suggested that MAO inhibitors may have a special efficacy in treating depressive illnesses with atypical features such as anxiety, fatique, phobia, or other somatic complaints. 48 references. (Author abstract)

159778 Prien, Robert F.; Klett, C. James; Caffey, Eugene M., Jr. Central Neuropsychiatric Research Laboratory, Veterans Administration Hospital, Perry Point, MD 21902 Lithium carbonate and imipramine in prevention of affective episodes. **Archives of General Psychiatry. 29(3):420-425, 1973.**

The effects of lithium carbonate, imipramine, and placebo therapy on 122 patients with recurrent affective illness for 2 years following discharge from hospitalization for acute depression were studied. Patients were classified as bipolar or unipolar based on the presence or absence of a history of mania. With bipolar patients lithium carbonate was significantly more effective than imipramine or placebo in preventing affective episodes (ie, manic or depressive attacks severe enough to require hospitalization or use of nonstudy drugs). There was a relatively high incidence of manic episodes on imipramine. Unipolar patients responded equally well to lithium carbonate or imipramine. Both treatments were significantly more effective than placebo. The difference between treatments was due primarly to depressive episodes: manic episodes occurred infrequently and were evenly distributed across treatment groups. There was no significant difference between lithium carbonate and imipramine among unipolar patients. 27 references. (Author abstract)

161386 Alino, J. J. Lopez-Ibor; Gutierrez, J. L. Ayuso; Iglesias, Maria Leonor Metejo. University of Madrid, Hospital Clinico, calle Isaac Peral, Madrid-3, Spain Tryptophan and amitriptyline in the treatment of depression: a double-blind study. **International Pharmacopsychiatry (Basel). 8(3):145-151, 1973.**

Amitriptyline together with L-tryptophan are compared with amitriptyline alone in a double-blind trial on 30 hospitalized patients suffering from depressive illness. Patients receiving the amino acid together with amitriptyline were found to improve more than control patients given amitriptyline only. The average scores obtained on a depression inventory were, however, not significantly different either at 15 days or after treatment. There was no evidence that either treatment had any advantage with regard to speed of action. Side effects were more numerous in patients treated with amitriptyline plus L-tryptophan than control patients, the difference being significant. 7 references. (Author abstract)

161387 Kukopulos, A.; Reginaldi, D. Studio di Psichiatria e di Psicologia Clinica, Via Crescenzio, 4, 00193 Roma, Italy Does lithium prevent depressions by suppressing manias? **International Pharmacopsychiatry (Basel). 8(3):152-158, 1973.**

The prophylactic action of lithium is confirmed when 41 patients with recurrent endogenous affective disorders were given continuous lithium treatment for periods varying from 3 months to 2 1/2 years. It was observed that a depressive episode was generally prevented or attenuated by lithium only when a preceding manic episode had been prevented or attenuated by lithium. There are only two unipolar depression types in this study, but it is suggested that lithium also has a prophylactic effect in these cases. Perhaps the biological substrate of unipolar depressions differs from that of depressions that are part of a biopolar disorder, and lithium might act directly on the former even though it acts only indirectly on the latter. Assumption of the existence of subclinical manias might account for bipolar cases that do not seem to follow the general rule. 7 references. (Author abstract modified)

161905 van Praag, H. M.; Dols, L. C. W. Department of Biological Psychiatry, Psychiatric University Clinic, 59 Oostersingel, Groningen, the Netherlands Fluphenazine enanthate and fluphenazine decanoate: a comparison of their duration of action and motor side effects. **American Journal of Psychiatry. 130(7):801-804, 1973.**

Fluphenazine enanthate and fluphenazine decanoate, two long-lasting neuroleptics, administered in a controlled comparative study to 30 patients with acute psychoses of different character and origin are studied. The duration of action and the extrapyramidal affinity of the two drugs are discussed. The decanoate ester acted longer than the enanthate ester and provoked fewer motor side effects. 13 references. (Author abstract modified)

162172 Almy, Gary L.; Taylor, Michael A. Clinical Investigation Center, Naval Hospital, Oakland, CA 94627 Lithium retention in mania. **Archives of General Psychiatry. 29(2):232-234, 1973.**

Lithium retention following a single orally administered dose of lithium carbonate in acute manic patients and normal controls is reported. Results confirm earlier work suggesting that acute manic patients retain significantly more of the lithium ion than normal controls; that this difference is detectable by comparing amounts of lithium ion excreted in the urine, but not by comparing serum concentrations; and that this difference in retention is apparent as early as 6 hours after the test dose administration and increases over a limited time. 18 references. (Author abstract modified)

162363 Maletzky, Barry M. Dept. of Neuropsychiatry, U.S. Army Lyster Hosp., Ft. Rucker, AL The episodic dyscontrol syndrome. **Diseases of the Nervous System. 34(3):178-185, 1973.**

The clinical syndrome associated with episodic dyscontrol is described, along with data relating to treatment. Twenty two patients exhibiting the general syndrome demonstrated violent losses of control upon minimal provocation, aurae and postictal states following such episodes, a history of alcoholism and increased aggression after alcohol, a childhood history of hyperkinesis and truancy, and a family background of alcoholism, sociopathy, and violence in the males, and depression in the females. Many had frequently been in trouble with the law and were prone to use their automobiles aggressively. Nineteen of these patients responded to Dilantin with a decreased frequency and severity of episodes. None exhibited obvious brain disease, and brain abnormalities could not be absolutely documented in many even after thorough examination. It is suggested that a majority harbored functional abnormalities of the limbic, and more specifically,

amygdaloid regions and that relegating such patients to purely psychiatric therapy could prove disastrous. 45 references. (Author abstract modified)

162380 Schou, Mogens; Shaw, David M. Aarhus Univ., Dept. of Psychiatry, Psychiatric Hospital, Risskov, Denmark Lithium in recurrent manic-depressive disorder. **Practitioner (London). 210(1255):105-111, 1973.**

Use of lithium in recurrent manic-depressive disorders is discussed. Investigations include double-blind clinical trials of lithium versus placebo. The drug is useful in the treatment of mania but not of already existing depression. Individual adjustment of dosage on the basis of regular blood level testing during maintenance therapy is discussed. Lithium functions within comparatively narrow limits of effectiveness and toxicitiy. Side-effects of lithium treatment are discussed. 1 reference. (Author abstract modified)

162636 Mindham, R. H. S.; Howland, C.; Shepherd, Michael. Institute of Psychiatry, London An evaluation of continuation therapy with tricyclic antidepressants in depressive illness. **Psychological Medicine (London). 3(1):5-17, 1973.**

A double-blind clinical trial was carried out to ascertain whether patients making a good recovery from depressive illness with tricyclic antidepressant medication derive any benefit from continuation of therapy with the same drug at a lower dose level. Of 92 patients considered, significantly fewer on active treatment relapsed during the 6 month trial period: 22% as compared with 50% of patients receiving placebo. Patients with residual symptoms on entry to the trial derived more benefit from continuation therapy than patients who had made a complete recovery. 24 references. (Author abstract modified)

162639 Cawley, Robert H.; Post, Felix; Whitehead, Antonia. Bethlem Royal Hospital, London Barbiturate tolerance and psychological functioning in elderly depressed patients. **Psychological Medicine (London). 3(1):39-52, 1973.**

Barbiturate tolerance and psychological functioning in elderly depressed patients is examined. Results indicate increases in barbiturate tolerance and in scores on certain cognitive tests. Changes were related to original severity of the illness and to the extent of improvement as well as to a number of clinical features including age at first attack. Findings supported theories linking depressive illness with reduction in cortical arousability. 21 references. (Author abstract modified)

162647 Tyrer, Peter; Candy, Julian; Kelly, Desmond. Bethlem Royal Hospital, London Phenelzine in phobic anxiety: a controlled trial. **Psychological Medicine (London). 3(1):120-124, 1973.**

A double-blind trial of phenlzine versus placebo in psychiatric outpatients with longstanding phobic anxiety is described. Forty patients with agoraphobia or social phobias entered the trial and 32 of these completed treatment with either phenelzine or placebo in flexible dosage for 2 months. Results indicate a significant improvement for patients on phenelzine compared on overall assessment and secondary phobias. These differences were not shown at assessment after 1 month's treatment, but became marked after 2 months. The improvement on phenelzine was not related to initial depressive symptoms in the patients. It was concluded that phenelzine is an effective agent in the treatment of phobic anxiety but that treatment needs to be continued for at least 2 months before full benefit is achieved. 12 references. (Author abstract modified)

163683 Campbell, P.; Gomez, L.; Ananth, J. V.; Bronheim, L. A.; Klingner, A.; Ban, T. A. Department of Psychiatry, McGill University, Montreal, Quebec, Canada An uncontrolled clinical trial with clomipramine in the treatment of depressed patients. **Current Therapeutic Research. 15(4):223-230, 1973.**

An uncontrolled clinical trial with clomipramine in the treatment of depressed patients is reported. Clomipramine was found to be effective in 10 Ss in dosages of 50 to 150mg per day. Significant improvement was noted on the clusters of Anxiety, Obsessive-Compulsive-Phobic and Depressive Retardation (Wittenborn Psychiatric Rating Scale) and on the clusters of Somatic-Hysterical, Anxiety-Depression and Apathy (Hamilton Psychiatric Rating Scale for Depression), indicating that clomipramine may also be effective in treating some forms of psychoneuroses. Improvement was noted during the first week of drug administration. However, between weeks 4 and 6, there was a transient increase in psychopathology followed by subsequent improvement during the last 3 weeks of the study. 8 references. (Author abstract modified)

163994 Fried, Frederick E.; Malek-Ahmadi, Parviz. Department of Psychiatry, University of Missouri Medical Center, Columbia, MO Psychopharmacology of the depressive neurosis. **Missouri Medicine. 70(4):245-248, 1973.**

Results of clinical pharmacological studies of depression, current classification of depression, and development of a comprehensive treatment plan which stresses a supportive psychotherapeutic relationship between physician and patient are discussed. It is suggested that at least some depressions are associated with a deficiency of catecholamines, especially norepinephrine, at the adrenergic synapse in the central nervous system, while an excess of these amines exists in states of elation. Following this hypothesis, drugs could be effective antidepressants via the following mechanisms: stimulation of monoamine synthesis, inhibition of MAO and catechol-o-methyltransferasee (COMT), stimulation of monoamine release, and inhibition of monoamine reuptake. Treating depressive neurosis with amphetamines and barbiturates runs the risk of fostering an iatrogenic intoxication, or amphetamine psychosis. 10 references. (Author abstract modified)

164681 Floru, L. 4 Dusseldorf-Gerresheim, Rheinisches Landeskrankenhaus, Psychiatrische Universitatsklinik, Germany /Clinical experiences with the new antidepressant maprotilin 34'276 Ba./ Klinische Erfahrungen mit dem neuen Antidepressivum Maprotilin 34'276 Ba. **Medizinische Welt (Stuttgart). 24(33-34):1283-1286, 1973.**

Forty patients suffering from depressive syndromes were treated with the tetracyclic antidepressant Maprotilin (Ludiomil - CIBA-GEIGY). Patients were divided into three groups depending on dosage. Group A initial dosage was 25mg once daily, increased to 50mg; group B 75mg once daily; group C 150mg once daily. The Zerssen and Immich rating scales were used to evaluate findings. Results show 13 complete remissions, 7 very good, 13 improved, 3 unchanged, and 4 deteriorations. General tolerance to the drug was good in 21 cases. Side-effects were slight in Group A, short in duration, and required no additional therapy. 20 references.

164719 Taylor, Michael Alan; Abrams, Richard. 9 Convent Pl., Hartsdale, NY 10530 The phenomenology of mania: a new look at some old patients. **Archives of General Psychiatry. 29(4):520-522, 1973.**

The phenomenology and response to treatment of 52 patients with an admission diagnosis of schizophrenia or other nonaffective illness satisfied research criteria for a diagnosis of mania. All patients manifested classical phenomena of mania and many demonstrated phenomena usually associated with schizophrenia. Prevalence of affective illness and alcoholism in first degree relatives, alcoholism in probands, the demographic characteristics of the sample, and the treatment response (particularly to lithium carbonate), were consistent with a diagnosis of affective disorder. It is suggested that: 1) the prior overdiagnosis of schizophrenia resulted from failure to adequately weight cardinal phenomena of mania when they occurred in the presence of phenomena thought to be specific for the diagnosis of schizophrenia; and 2) more intensive phenomenologic investigations of schizophrenic subtypes (e.g.,paranoid schizophrenia) will yield a high proportion of individuals with affective illness. 8 references. (Author abstract)

164720 Frazer, Alan; Pandey, Ghanshyam N.; Mendels, Joe. Affective Disease Research Unit, University of Pennsylvania, c/o VA Hospital, University and Woodland Ave., Philadelphia, PA 19104 Metabolism of tryptophan in depressive disease. **Archives of General Psychiatry. 29(4):528-535, 1973.**

The metabolism of tryptophan (TRYP) to kynurenine and its metabolites, to tryptamine and through serotonin to 5-hydroxyindoleacetic acid was studied in nine depressed patients and six nondepressed psychiatric subjects. In general, there were no significant differences in the basal urinary excretion of the nine metabolites measured between the two patient populations nor in the excretion of these metabolites after the administration of an oral dose of 2gm of L-tryptophan. Also, pyridoxine (150mg) did not differentially alter the TRYP produced increases in urinary metabolites in the two groups of subjects. The data in this report do not support the suggestion of increased metabolism of TRYP along the kynurenine pathway in depression. 65 references. (Author abstract)

166390 Ditman, Keith S.; Cohen, Sidney. Department of Psychiatry, UCLA, Los Angeles, CA Gerovital H3 in treatment of depression. Preliminary results. **Gerontologist. 13(3, Part II):63, 1973.**

Evaluation of the use of Gerovital H3 in treatment of depression was conducted, as a result of

recent findings that neuronal amine oxidase is increased with aging and that selective amine oxidase inhibition occurs with the buffered procaine solution. Because of the relationship between increased synaptic levels of norepinephrine (NE) with antidepressant effects, it was considered worthwhile to test efficacy of GH3 in the depressed Ss. It was hypothesized that selective amine oxidase inhibition would raise NE levels while avoiding side-effects of broad - spectrum amine oxidase inhibitors with patients and healthy volunteers. Regimen was 100 to 200mg, GH, three times weekly i.m. for 4 weeks to determine if the drug is safe and effective. Results indicate that GH3 is safe, as measured by patient reports, observations, and a battery of laboratory tests. Various degrees of improvement occurred in 15 cases and 3 were unchanged; these improvements were confirmed by the mood scale and symptom checklist. While suggestibility cannot be ruled out as one cause of improvement, these results warrant continuation of evaluation studies. (Journal abstract modified)

166729 Escobar, Javier I.; Flemenbaum, Abraham; Schiele, Burtrum C. Department of Psychiatry, Saint Paul Ramsey Hospital, 640 Jacks on Street, St. Paul, MN 55101 Chlorimipramine: a double-blind comparison of intravenous versus oral administration in depressed patients. **Psychopharmacologia (Berlin). 33(2):111-116, 1973.**

A double-blind study was carried out in 30 depressed patients to compare the results of chlorimipramine given orally and intravenously. The speed of onset of action and the overall improvement were excellent for both treatment modalities. No significant differences were found favoring either way of administration. The results do not support previous reports that suggest advantages and rationale for the intravenous usage of chlorimipramine. 9 references. (Author abstract)

166908 Yajima, Yuko; Ishige, Kyoko, Watanabe, Yoshihiko; Ono, Nariharu. Department of Neuropsychiatry, Fukuoka Medical College, Japan Glutathione therapy of early senile dementia. **Clinical Neurology (Tokyo). 12(5):214, 1972.**

The effect of glutathione on senile dementia was studied, based on a 58-year-old female patient with Alzheimer's disease. Main symptoms were disturbance of memory, geographic agnosia, and apraxia. The patient experienced sudden onset of symptoms and showed a decrease in serum iron and an increase in glutamic oxaloacetic transaminase and glutamic pyruvic transaminase. Treatment with glutathione rapidly improved her general symptoms and restored the normal levels of serum iron, glutamic oxaloacetic transaminase and glutamic pyruvic transaminase. (Journal abstract modified)

166934 Shinfuku, Naotake. Department of Neurology and Psychiatry, Jikei University School of Medicine, Japan Modern trends in the diagnosis and treatment of depression: changes in treatment methods and their results. **Kyushu Neuro-psychiatry (Fukuoka). 18(2):77-81, 1972.**

Changes in the diagnostic and treatment methods for depression and their results are reviewed. Imipramine was introduced to Japan in 1957 and has been used since 1959. No difference in the rate of recovery is observed between electroshock or psychopharmacological treatment, however, a significant difference is observed in the period of hospitalization; 88% of the patients treated with electroshock remained hospitalized less than 3 months while 89% of those treated with psychotropic drugs stayed longer than 12 months. These factors indicate that psychopharmacological treatment is not superior to electroshock treatment. 12 references.

166960 Beckmann, Helmut; Jones, Coralyn C.; Goodwin, Frederick K. Section on Psychiatry, Laboratory of Clinical Science, NIMH, Bethesda, MD 20014 Central norepinephrine metabolism and the prediction of antidepressant response to imipramine or amitriptyline: studies with urinary MHPG in unipolar depressed patients. (Unpublished paper). Bethesda, MD, NIMH, 1973. 12 p.

The proposed relationship between predrug urinary excretion of 3-methoxy-4-hydroxyphenylglycol (MHPG) and antidepressant response of depressed patients was investigated by devaluating responders and nonresponders to two major tricylic antidepressants, imipramine and amitriptyline. Ss were suffering with unipolar depression; about two thirds improved on each of the drugs. For each drug the responders could be differentiated from nonresponders based on pretreatment urinary excretion. Decrease in MHPG produced by both drugs, however, produced somewhat of a paradox: there is some evidence from animal studies showing that different tricyclics have differential effects on uptake of

various amines, with imipramine derivatives having a potent effect on norepinephrine reuptake but a relatively weak effect on serotonin, and amitriptyline having a more potent effect on serotonin reuptake. The data are consistent with a concept of biochemical heterogeneity of the depressive disorders. Patients who respond to imipramine may have a preexisting disorder of norepinephrine metabolism, and those who respond to amitriptyline may not. 33 references.

166986 Jensen, P. Stigaard; Kirk, L. no address /Fenfluramine (Ponderal) in treatment of adiposity caused by neuroleptics./ Fenfluramin (Ponderal) ved behandling af adipositas framkaldt at neuroleptica. **Nordisk Psykiatrisk Tidsskrift (Odense, Denmark). 26(6):367, 1972.**

Fenfluramine (Ponderal) was compared with a placebo in a double-blind, double crossover test using 40 chronic psychotic female patients undergoing neuroleptic treatment, all at least 10% overweight. No changes in calories or medication were made. The test lasted for 6 months, divided into three 9 week periods. Fenfluramine dosage during all three periods was 80mg per day. Average weight loss during the fenfluramine periods was constant and approximately 1.5mg, while during the three placebo periods there was fluctuation from weight loss to weight increase in two periods. No relationship was found between weight changes and neuroleptics administered to the patients. There was no change in Hb, SR, leukoctye number, alkaline phosphatase, or GP-transaminase, and no objective abstinence symptoms were found when changing from fenfluramine to the placebo. Three schizophrenic patients, two of whom were treated with known fenfluramine, tendency to periodic deterioration remained increasingly psychotic, and a manic-depressive female had lighter depression during treatment that decreased 8 days after discontinuation of the treatment. The treatment was attempted three times, each time with the same results.

10 DRUG TRIALS IN NEUROSES

149746 Cavalca, G. G.; Menegati, E.; Montevecchi, M. T. Clinica delle Malattie Nervose e Mentali dell'Universita di Modena, Italy /Clinical experience with a combination of chlorimipramine and thyroid extract in the treatment of patients suffering from depression./ Esperienze cliniche di trattamento combinato di clorimipramina e di estratti tiroidei in pazienti depresse. **Rassegna di Studi Psichiatrici (Siena, Italy). 61(4):392-406, 1972.**

Six female patients in the menopause or premenopause suffering from depression were treated with a combination of chlorimipramine with a thyroid extract and another six patients were treated with only chlorimipramine at 50 to 100mg/day. The thyroid extract was administered in the form of thyroid Negroni capsules containing 0.085g thyroid extract powder with .23% iodine organically combined. Treatment restults rated by the Hamilton Rating Scale measuring loss of vital interest, hypochrondria, depression, anxiety, insomnia, guilt feelings, and suicidal tendency manifested in the group treated by the combination drug showed a marked improvement in all test parameters within a few days following the beginning of treatment. Results obtained with only chlorimipramine were less marked and slower in materializing. In the first group the treatment rendered itself particularly efficacious on the physical and somatic components of the depressive state, rather than on those strictly psychic. In the second group similar results occurred but with longer latency times and without a difference between symptoms tied to activity and general tone and those more psychic in nature. 39 references.

150554 Deberdt, R. Psychiatric Center 'H. Hart', 8900 Ieper, Belgium Low doses of haloperidol in anxiety - tension states. **Psychiatria, Neurologia, Neurochirurgia (Amsterdam). 75(5):317-324, 1972.**

Twenty chronic outpatients presenting symptoms of anxiety tension took part in a placebo controlled trial of haloperidol. The study was conducted double-blind over 2 months with a crossover after 1 month. The dosage was one capsule (0.5mg) twice daily. Patients were evaluated using the Hamilton Anxiety Rating Scale before and at the end of each treatment period. The results indicate that in these patients haloperidol was superior to the placebo in alleviating anxiety and tension. The absence of side-effects is of particular value to patients who must continue their daily duties. 9 references. (Author abstract)

150776 Goic, Aleksandar; Torreblanca, Jorge; Silva, Gabriel; Galano, Arnaldo. Servicio de Medicina, Universidad de Chile y SNS, Hospital Salvador, Santiago, Chile /Clinical use of psychodrugs./ Uso clinico de los psicofarmacos. **Revista Medica de Chile (Santiago). 100(3):263-273, 1972.**

The use of psychodrugs in the treatment of patients with emotional disturbances (anxiety reactions, depression, emotional fatigue syndrome) is discussed. The importance of using these psychopharmaceuticals in association with other synptomatic measures, such as environmental management and relaxation and with more radical measures such as psychotherapy is stressed. A simple and operational classification of antianxiety drugs, based upon their tolerance (measured by somnolence) and of antidepressants according to their rate of action (measured by their route of administration) is proposed. Drugs that have been most successful in the treatment of anxiety reactions (benzodiazepine compounds) and of depressive reactions (tricyclic compounds and monoamine oxidase inhibitors) are analyzed in detail. Tricyclic antidepressants are preferred in depressive patients with simultaneous manifestations of anxiety. Indications, routes of administration, dosage, and side-effects are considered. The risk of psychic dependence and addiction to some psychodrugs, particularly to meprobamate and exceptionally to chlordiazepine, both in the anxious and depressed patient are evaluated. Barbiturates are not indicated in psychosomatic practice. The association of antianxiety drugs and antidepressants in patients with combined symptoms and in elderly patients is not recommended. The simultaneous use of tricyclic antidepressants and MAO inhibitors is suggested as a substitute for potentially harmful psychodrug combinations. (Journal abstract modified)

150790 Lord, D. J.; Kidd, C. B. Claremont Hospital, Claremont, Western Australia 6010 Haloperidol versus diazepam: a double-blind crossover clinical trial. **Medical Journal of Australia (Sydney). 1(12):586-588, 1973.**

The therapeutic effectiveness of haloperidol was compared with that of diazepam in clinical trials in 51 patients; the object of this trial was to determine the efficacy of low doses of haloperidol against the existing therapeutic alternative, diazepam, in the treatment of clinically manifest anxiety. The study was conducted on a double-blind, crossover basis. Side-effects were found to be variable in nature, mild, and distributed similarly between the two patient groups. This trial confirms that haloperidol, in low dosage (0.5mg twice daily), is a useful implement in the management of clinically manifest anxiety. 11 references. (Author abstract modified)

151162 Tyrer, Peter J.; Lader, Malcolm H. Dept. of Psychiatry, Inst. of Psychiatry, Univ. of London, London, England Effects of beta adrenergic blockade with sotalol in chronic anxiety. **Clinical Pharmacology and Therapeutics. 14(3):418-426, 1973.**

To determine whether adrenergic beta receptor blockade is of value in the treatment of anxiety, the efficacy of sotalol (MJ 1999) in the treatment of chronic anxiety was investigated. Psychiatric outpatients with chronic anxiety of at least 6 months duration were treated with sotalol and placebo for 2 weeks each in a crossover trial using a double-blind procedure. Ratings of anxiety and its bodily manifestations were made by therapist and patient after each treatment. Finger tremor was measured by power spectral analysis using a laboratory computer. Significant drug - placebo differences were found for a number of clinical ratings, but for many of these, there was discrepancy between patient and therapist. Sotalol was also found to reduce the amount of tremor. It is suggested that sotalol has a place in the treatment of anxiety, particularly in patients with tremor as a major symptom, but is unlikely to be effective as a sole therapeutic agent. 37 references. (Author abstract modified)

151394 Lopez-Ibor Alino, Juan Jose; Ayuso Gutierrez, Jose Luis. Depto. de Psiquiatria y Psicologia Medica. Hospital Clinico. Universidad Compultense, Madrid, Spain. /New therapeutic possibilities in depressions: tryptophan and inhibitors of monoamine oxidase./ Nuevas posibilidades terapeuticas en las depresiones: triptofano e inhibidores de la monoamino-oxidasa. **Actas Luso Espanolas de Neurologia, Psiquiatria y Ciencias Afines (Madrid). 1(0):69-75, 1972.**

Nialamide plus d,l-tryptophan and nialamide plus placebo were administered to 30 patients under 65 years of age exhibiting inhibitions, anxiety, or obsessive traits as classified by the Hamilton scale of depressions. All patients had undergone electroconvulsive or drug treatment a month before. Subjects treated with nialamide plus d,l-tryptophan showed a more rapid and higher average of improvement than those treated only with nialamide. Ten cases treated with nialamide plus d,l-tryptophan and five with nialamide showed a complete remission of symptoms while one case treated with combined dosage and three with nialamide showed a marked improvement. Two cases under combined dosage and three with nialamide showed only a small improvement. One

case of combined treatment and four with nialamide showed no improvement at all. With respect to side-effects, 10 cases treated with nialamide plus d,l-tryptophan and seven with nialamide exhibited collateral effects during the first week of the 20-day observation period, but only two patients had to discontinue treatment. The drugs were administered intravenously throughout the entire experiment. (Author abstract modified)

152342 Setyonegoro, R. Kusumanto; Tjandra, J. no address Treatment of ambulatory neurotic patients with WY-4036, Jakarta, Indonesia. **Indonesian Psychiatric Quarterly (Jakarta). 6(1):19-33, 1973.**

A total of 92 ambulatory neurotic patients (69 males, 23 females) were treated with WY-4036 in dosages of 0.5-12mg/day. Good or moderate improvement was seen in 77% of the cases; 20% showed slight improvement, and 3% did not improve at all. A breakdown of diagnostic categories indicates that most patients benefited from this treatment with the exception of situational anxieties, psychophysiologic neurosis and mixed neuroses. It was concluded that WY-4036 is a potent antianxiety compound. (Author abstract modified)

153278 Smulevitch, A. B; Minsker, E. I.; Mazayeva, N. A.; Volkova, R. P.; Lukanina, S. K. Institute of Psychiatry, Academy of Medical Sciences of the USSR, Moscow The problem of clinical activity of long-acting neuroleptics. **Comprehensive Psychiatry. 14(3):227-233, 1973.**

The problems of clinical activity of long-acting neuroleptics such as fluphenazine decanoate (FD) with drugs that do not have prolonged action are examined. Fluphenazine decanoate has the quality of selectivity in relation to disorders which tend to be resistant to psychopharmacological therapy, i.e.,obsessions and verbal hallucinosis. This preparation appears to be more effective than its short acting analog (fluphenazine), as well as some other neuroleptics, (trilaphon, haloperidol) which have a notably selective activity in respect to obsessions and verbal hallucinosis. Unlike plain fluphenazine, haloperidol, stelazine and some other neuroleptics, produce a greater activating influence. The latter is demonstrated both in an absence of general anergia or somnolence during therapy and in the specific pattern of complications. Among the extrapyramidal disturbances occurring in fluphenazine decanoate therapy, severe signs of the akineto rigid syndrome are almost absent, whereas marked symptoms of motor excitement (akathisia) tend to prevail. 47 references. (Author abstract modified)

153606 Solyom, L.; Heseltine, G. F. D.; McClure, D. J.; Solyom C.; Ledwidge, B.; Steinberg, G. University of Ottawa, Ottawa, Ontario, Canada Behaviour therapy versus drug therapy in the treatment of phobic neurosis. **Canadian Psychiatric Association Journal (Ottawa). 18(1):25-32, 1973.**

A study of behavior therapy versus drug therapy in the treatment of phobic neurosis is reported. The behavior treatments used were: systematic desensitization, aversion relief, and flooding. A double-blind design was used in the drug therapy: 1) phenelzine with brief psychotherapy and 2) placebo with brief psychotherapy. The results indicate that it may be advantageous to add drug therapy to one of the behavior therapies. The drug therapy seems to produce faster therapeutic results, which can increase motivation to remain in treatment, while the behavior therapies may consolidate the result, thereby making further drug therapy unnecessary. 15 references.

153607 McCormick, W. O. Department of Mental Health, Queen's University of Belfast, Belfast, Northern Ireland Declining-dose drug desensitization for phobias: clinical and psychophysiological studies. **Canadian Psychiatric Association Journal (Ottawa). 18(1):33-40, 1973.**

The theoretical basis, technique, clinical, and psychophysiological studies on the declining dose drug desensitization program for phobias are reported. Results from an unselected series of 14 patients are reported. The applicability of the treatment and the low cost in both patient and therapist time are examined. The contribution of the drug element to the acceptability and pleasantness of this treatment method are discussed, with illustrations from psychophysiological investigations. 7 references.

153608 Bonn, J. A.; Harrison, Jean; Rees, Linford. Department of Psychological Medicine, St. Bartholomew's Hospital, London, England Lactate infusion in the treatment of 'free-floating' anxiety. **Canadian Psychiatric Association Journal (Ottawa). 18(1):41-46, 1973.**

The successful use of biweekly intravenous infusions of sodium lactate in alleviating symptoms in 33 patients suffering from intractable nonsituational, nonphobic, free floating anxiety is re-

ported. Data are presented showing differential physiological and biochemical reactions to lactate, sodium chloride, and calcium infusions, as well as significant declines in self-rated anxiety for patients treated with lactate infusions for 3 weeks. Three and 6 week followups suggest that these psychological changes may be relatively stable. The relevance of these results for a behavioral technique is suggested. 2 references.

153609 Silverstone, J. Trevor; Salkind, M. R. Department of Psychological Medicine, St. Bartholomew's Hospital, London, England Controlled evaluation of intravenous drugs in the specific desensitization of phobias. **Canadian Psychiatric Association Journal (Ottawa). 18(1):47-53, 1973.**

The results of a controlled study of the effect of intravenous drugs in the specific desensitization of phobias are reported. The 35 patients who participated had phobic symptoms of at least 1 year's duration. Intravenous methohexitone, given as an adjunct to the behavior therapy of phobias, was compared with another centrally acting, rapidly metabolized intravenous agent, propanidid, and also with normal saline. It was concluded that drug assisted desensitization is likely to be of greatest benefit in the management of specific phobias, with propanidid being the drug of choice. 18 references.

153794 Lehmann, Heinz E.; Ban, Thomas A. Department of Psychiatry, McGill University, Montreal, P.Q., Canada Pharmacotherapy of tension and anxiety. **In: Masserman, J., Current psychiatric therapies. New York, Grune & Stratton, 1972. 264 p. (p. 70-80), v. 12.**

The development of anxiolytic sedatives is reviewed. The properties of propanediols, diphenylmethanes, and benzodiazepines are summarized. Practical considerations for the usage of anxiolytic sedatives are discussed, including suicide incidence and effects on driving skills. Anxiety is viewed in terms of three essential components. The first component, arousal, is a diffuse and fundamental property of all behavior and mainly responsible for the intensity of anxiety. The second factor, affect, refers to the specific qualities of feeling, behavior, and somatic response which characterize anxiety. The third component is apperception or articulate awareness and cognitive evaluation of any affective experience. 55 references.

155792 Goldberg, Harold L.; Finnerty, Richard J. Boston State Hospital, 591 Morton St., Boston, MA 02124 The use of hydroxyzine (Vistaril) in the treatment of anxiety neurosis. **Psychosomatics. 14(1):38-41, 1973.**

Clinical action of hydroxyzine in psychoneurotic patients with anxiety and some component of depression was studied by assigning 23 patients controlled dosages of hydroxyzine and 28 patients a placebo for 4 weeks. Global evaluations indicate a trend toward improvement at 2 weeks with significant differences not occurring until the third week. Specific factors that showed improvement after 4 weeks include tension and anxiety, anger and hostility, fear, and insomnia. It is noted that a majority of self-rating scale items and factors, including depression, and 9 of 13 items on the Hamilton Scale did not show significant improvement. Hydroxyzine was found to be extremely well tolerated; the only reported side effects were drowsiness and dizziness. It is suggested that hydroxyzine may be an effective, though slow acting, medication for the treatment of some psychoneurotic symptoms. 4 references.

155793 Hayworth, R. M. Helen Ross McNabb Center, 1520 Cherokee Trail, Knoxville, TN 37920 Positive outcome in psychiatric crisis: evaluation of thioridazine concentrate in an intensive, short-term psychiatric program. **Psychosomatics. 14(1):42-45, 1973.**

The value of thioridazine as an adjunct to an intensive, short-term treatment program was determined by administering exact dosages of the concentrate to 60 patients in a crisis state. The findings show that, at an average daily dosage of 175mg, thioridazine provides significant remission of symptomatology, such as anxiety, tension, depressive mood, hostility, and mannerisms and posturing within a 7 day period. Patients with a history of previous hospitalizations suggestive of chronic illness tend to be less responsive to treatment than those with fewer previous hospitalizations. Acceptance and tolerance of the medication was found to be good; only one of 60 patients experienced side-effects. 8 references. (Author abstract modified)

155794 Yamamoto, Joe; Kline, Frank M.; Burgoyne, R. W. University of Southern California School of Medicine, Los Angeles, CA The treatment of severe anxiety in outpatients: a controlled study comparing chlordiazepoxide and chlorpromazine. **Psychosomatics. 14(1):46-51, 1973.**

The relative efficacy and toxicity chlordiazepoxide and chlorpromazine for the relief of moderate to severe anxiety and tension, with or without associated psychoneurotic disorders, was tested in 81 neurotic patients during a 4 week, double-blind study. The results show no differences in anxiety and tension, nor in the associated symptoms of somatic concern, guilt feelings, depressive mood, uncooperativeness, and blunted affect; statistically significant differences favor chlorpromazine in emotional withdrawal and hostility. No statistically significant difference exists between the two drugs in the proportions of patients with side-effects of drowsiness and lethargy. Chlorpromazine is recommended when the patient has problems due to emotional withdrawal and hostility, or when a trial with chlordiazepoxide is unsuccessful; however, chlordiazepoxide is preferred as initial therapy for anxiety and tension of neurotic patients because of its comparable efficacy and greater safety compared to chlorpromazine. 10 references.

155886 Kornhaber, Arthur. 344 Main Street, Mt. Kiscoe, NY Obesity-depression: clinical evaluation with a new anorexigenic agent. **Psychosomatics. 14(3):162-167, 1973.**

A correlation between obesity and depression, and the hypothesis that amelioration of one condition might be related to improvement in the other is discussed. Three studies are described of clinical testing of the new anorexigenic drug Sanorex, which produced weight loss and antidepressant effects. 5 references.

155887 Smith, Marshall. P.O. Box 157, Caribou, ME 04736 Clinical response to amitriptyline and chlordiazepoxide-amitriptyline (Limbitrol) in anxiety-depressive states: A double-blind study. **Psychosomatics. 14(3):168-175, 1973.**

Clinical trials to investigate the combination of chlordiazepoxide-amitriptyline with amitriptyline alone in psychoneurotic outpatients with mixed symptomatology are discussed. It is concluded that the combination of an antidepressant and an antianxiety agent are more effective than a single drug. 18 references.

156555 Korolenko, C. P.; Iljuczenok, R. J.; Pantelejewa, E. A.; Czaplygina, S. R. Katedra Psychiatrii, Panstwowy Nowosybirski Instytut Medyczny, Nowosybirsk, Krasnyj Prospekt 52 USSR /Some pathogenic mechanisms of the therapeutic efficacy of atropine in anancastic syndromes./ Niektore mechanizmy patogenetyczne skutecznosci leczniczej atropiny w zespolach natrectw. **Psychiatria Polska (Warszawa). 7(1):1-8, 1973.**

Between 1969-1971 a total of 62 patients with anancastic syndromes refractory to treatment including 45 with obsessive-compulsive neurosis, 9 with schizophrenia and 8 with anancastic symptoms of various etiology (periodic psychosis, organic cerebral disease, alcoholic encephalopathy) underwent atropine therapy. The drug was administered i.m. as a 1% solution in an initial dose of 3 to 4mg which was increased 2 to 3mg at each successive treatment. The smallest amount inducing psychotic changes consisted of 0.15 to 2mg/kg corresponding to 7 to 15mg (0.7-1.5ml) of atropine. The psychotic state in the form of mild to moderate delirium or somnolence was interrupted after 5 to 6 hours by s.c. injection of a 1% solution of physostygmine or galantamine. Treatment was repeated 3 times weekly for a total of 12 to 20 sessions. Good, long lasting (observation period 6 months to 2 years) results were obtained in all cases of obsessive-compulsive neurosis. All patients with symptoms of obsession experienced a lessening in intensity of obsession, emotional tension and anxiety. In schizophrenic patients the remission was of short duration and the basic schizophrenic process remained unaffected. It is suggested that the beneficial effect of atropine in obsessive-compulsive neurosis is due to blocking of muscarine cholinergic brain structures, which are involved in the processes during which intrusive images of long-term emotional memory are formed and fixed. It is concluded that anancastic states and long-term emotional memory have some mechanisms in common and the efficacy of atropine therapy supports the theory that these are of cholineric origin. 37 references.

156920 Servadio, Emilio. Centro Psicoanalitico di Roma, Rome The use of LSD in the psychoanalytic treatment of a case of anxiety hysteria./ Der Gebrauch von LSD in der psychoanalytischen Behandlung eines Falles von Angsthysterie. **Zeitschrift fur Psychosomatische Medizin und Psychoanalyse (Gottingen). 19(1):77-87, 1973.**

A case history involving the use of LSD in psychopharmacological therapy is presented. A 26-year-old married female patient, suffering from anxiety attacks, who had been in analysis for two years, was treated with LSD and psilocybin on

three occasions; the results led to great progress in the analysis. The psilocybin experiment took place in a calm atmosphere, involved purely sensory effects on the patient, and did not lead to any progress. The LSD experiments led to very dramatic symbolization of the patient's early family relationships. The patient interpreted the second LSD experiment as a rebirth, and felt that it was possible to completely reshape her life. Ensuing progress was rapid and the patient is currently enjoying excellent mental health.

156940 Charalampous, K. D.; Tooley, William; Yates, Charles. Dept. of Psychiatry, Baylor College of Medicine, Houston, TX 77025 Clorazepate dipotassium: a new benzodiazepine antianxiety agent. **Journal of Clinical Pharmacology and New Drugs. 13(2 and 3):114-118, 1973.**

Thirty three clinic outpatients with marked anxiety received clorazepate dipotassium and 22 others received placebo in a double-blind clinical study. The daily dose of the active drug, after a 1-week placebo washout, ranged from 15 to 60mg (mean, 31mg). Treatment was continued for a period of 10 to 32 days, with a mean duration of 21 days. Significantly lowered scores on the Hamilton Anxiety Rating Scale favored clorazepate dipotassium over placebo. The overall therapeutic response also demonstrated the superiority of the active drug over the placebo. Differences between the active drug and placebo on the severity and self-rating scales are not statistically significant. An overdose of clorazepate dipotassium in one patient did not result in any residual effects. 11 references. (Author abstract modified)

163329 Cammer, Leonard. 110 East 82nd St., New York, NY 10028 Antidepressants as a prophylaxis against depression in the obsessive compulsive person. **Psychosomatics. 14(4):201-206, 1973.**

The use of antidepressants as a prophylaxis against depression in the obsessive compulsive person is reported. Twenty patients between the ages of 20 and 68 were treated with daily doses of desipramine or an equivalent tricyclic. Findings indicate that tricyclic compounds, about 70% effective in overcoming neurotic depression, are not effective in maintenance dosage as a prophylaxis against recurrent depressions in the obsessive compulsive person. 9 references.

163337 Lingl, F. A. 2260 Warrensville Center Rd., Cleveland, OH 44118 Double-blind comparison of haloperidol and thioridazine in treatment resistant psychoneurotic outpatients. **Psychosomatics. 14(4):235-240, 1973.**

A double blind comparison of low daily doses of haloperiodol and thioridazine conducted in 32 treatment resistant psychoneurotic outpatients is reported. Both drugs produced reduction in all target symptoms but haloperiodol was somewhat more effective in reducing anxiety, agitation and tension while thioridazine was superior in alleviating insomnia. Good to excellent response was experienced in 75% of the patients in the haloperiodol group and 50% of those in the thioridazine group. Side effects observed were identical for each drug but somewhat different in character. It is concluded that both drugs constitute safe and effective treatment in the groups of patients where other treatments had been ineffective, poorly tolerated or subject to abuse and development of tolerance. 16 references. (Author abstract modified)

163751 Lipsedge, M. S.; Hajioff, J.; Huggins, P.; Napier, L.; Pearce, J.; Pike, D. J.; Rich, M. Department of Psychological Medicine, St. Bartholomew's Hospital, London, E. C. 1, England The management of severe agoraphobia: a comparison of iproniazid and systematic desensitization. **Psychopharmacologia (Berlin). 32(1):67-80, 1973.**

Sixty outpatients with severe agoraphobia took part in a controlled prospective clinical trial of combinations of methohexitone assisted and standard systematic desensitization and monoamine oxidase inhibitor. Severity of agoraphobia in terms of avoidance and anxiety was rated both by the patients themselves and by an independent assessor during the 8 weeks of treatment. The monoamine oxidase inhibitor produced a significant reduction in severity of anxiety but not of avoidance. Methohexitone assisted systematic desensitization appeared to produce significantly greater improvement than either standard systematic desensitization or no systematic desensitization in both anxiety and avoidance. Assessors' ratings showed that the monoamine oxidase inhibitor used in conjunction with methohexitone assisted systematic desensitization produced slightly greater clinical improvement than the other treatment combinations. 20 references. (Author abstract)

164219 Itil, T. M.; Polvan, N.; Egilmez, S.; Saletu, B.; Marasa, J. Missouri Institute of Psychiatry, 5400 Arsenal Street, St. Louis, MO Anxiolytic effects of a new triazolobenzodiazepine. U-31,889. **Current Therapeutic Research. 15(9):603-615, 1973.**

A single-blind study of U-31,889 was carried out in a group of nonhospitalized patients with anxiety syndrome to evaluate a computer analysis of the new triazolobenzodiazepine which predicted clinical anxiolytic properties. The drug was given the first 4 days in a fixed dosage schedule and was later titrated to an optimal therapeutic dosage of 2mg daily. Subjective and objective clinical evaluations demonstrated a significant improvement of anxiety symptoms and somatic complaints by the 4th day of treatment. Sleepiness during the first week and myosis were the only observed side-effects. Computer analysis of the EEG demonstrated significant changes which are specific for all existing minor tranquilizers. Significant correlations between drug induced computer EEG alterations and clinical improvement were found. 17 references. (Author abstract modified)

166985 d'Elia, G.; von Knorring, L.; Marcusson, J.; Mattsson, B.; Ottosson, J.-O; Perris, C.; Persson, G. no address /A double-blind study of diazepam and doxepin used in anxiety treatment./ En dubbelblind studie mellan diazepam och doxepin vid angesttillstand. **Nordisk Psykiatrisk Tidsskrift (Odense, Denmark). 26(6):365-366, 1972.**

A double-blind test to compare diazepam and doxepin for treatment of anxiety, stress, and depression, performed with 47 outpatients arbitrarily divided into two groups and rated prior to treatment, is reported and results given after 2, 4, and 8 weeks of treatment according to the clinic's rating formula. The patient groups had the same background variable. Side-effects were recorded for all visits, and weight was recorded before and after tests. Clinical variables were analyzed using the profile analysis according to the Morrison variance analysis method. Both preparations exhibited good antianxiety effects, and a comparison of the total number of disorders, individual symptoms, and disorder and social functioning, showed no significant difference between the preparations. The comparison showed that the total number of medically recorded symptoms decreased significantly (p less than 0.01) for doxepin, and that patients in the doxepin group gained an average of 3 kg in weight during treatment. 7 references.

11 DRUG TRIALS IN MISCELLANEOUS DIAGNOSTIC GROUPS

149744 Fumi, S.; Alessandri, L.; Opice, B. Ospedale Psichiatrico S.Maria della Pieta, Rome, Italy /The effects of long-acting thioridazine in some psychiatric diseases./ Studio degli effetti della tioridazina retard in alcune malattie psichiatriche. **Rassegna di Studi Psichiatrici (Siena, Italy). 61(4):371-380, 1972.**

Thirty six female patients including 16 schizophrenics, 8 oligophrenics, and 12 patients suffering from depression or anxiety were treated from 1 to 5 months with 200 to 400mg of thioridazine/day. In some patients, especially in cases of schizophrenia with deliriant and hallucinatory symptomology, haloperidol was also given in doses of 1 to 3mg/day. Thioridazine brought a clear improvement in almost all cases in which autism, lack of initiative and interest, and nonsocial activity were present. The thioridazine - haloperidol combination did not completely resolve deliriant and hallucinatory symptoms, but did strongly reduce the patient's interest in his delirium. In all, patients became more tranquil, sociable and active. No secondary effects from either drug were noted; this tolerance allowed reduction in dosage of the thioridazine - haloperidol combination. 21 references.

149745 Capobianco, Paolo. Ospedale Psichiatrico di Sondrio, Italy /Specific characteristics of dibenzothiazepine in psychotherapy./ Specifiche caratteristiche della dibenzotiazepina in terapia psichiatrica. **Rassegna di Studi Psichiatrici (Siena, Italy). 61(4):381-391, 1972.**

Twenty different long-term psychiatric patients of the Psychiatric Hospital at Sondrio were treated for a period of 1 year with 50 to 60mg/day DBT, in some cases associated with other neuroleptics like haloperidol or reserpine. In one case 200mg/day was administered to a patient weighing 280 lbs. All patients treated were classified as violent and aggressive who at times in the past could be controlled solely by confinement. Results in all instances were good; the drug was specifically effective against aggressivity, impulsiveness, and violence. In all patients this type of psychopathological behavior was controlled by the therapy. The drug also controlled sleeplessness. Results became noticeable after 10 days of therapy. In two patients the drug induced a marked neurodysleptic syndrome and had to be discontinued; in one patient the treatment had to

be suspended because of a dangerous lowering of arterial pressure. Routine laboratory examinations and controlled electrocardiography did not show noteworthy variations, thus confirming the scarce toxicity of the drug. 8 references.

150219 Poirier, L.-J.; Bedard, P.; Langelier, P.; Larochelle, L.; Parent, A.; Roberge, A. Laboratoires de Neurobiologie, Departement d'Anatomie, Faculte de Medecine, Universite Laval, Quebec, Canada /Role of monamines in the psychopathology of motoricity: /Role of monamines in the psychopathology of motoricity: implicated neural circuits in the psychopathology of parkinsonian syndromes./ Role des monoamines dans la physiopathologie de la motricite: les circuits neuronaux impliques dans la physiopathologie des syndromes parkinsoniens. **Revue Neurologique (Paris). 127(1):37-50, 1972.**

A histopathological investigation of neural interrelations in parkinsonian manifestations is based on new neuroanatomic techniques and electrophysiological evaluations. This theoretical extrapyramidal or styropaladial system of afferent and efferent nerve sensations provides a link between nerve centers in the thalamus, cerebral trunk and certain grey areas of the brain and specific motor disorders in parkinsonian subjects. The role of neurochemical mechanisms in stimulating parkinsonian type postural trembling in laboratory monkeys is noted. Experimental treatment with L-dopa, 6-OH-DA, demonstrates an effective destruction of these monoaminic mechanisms and a relaxation of parkinsonian reactions.

150220 Boudin, G.; Pepin, B.; Guillard, A.; Fabiani, J. M.; Haguenau, M. Clinique Neurologique de la Salpetriere, Division Mazarin, 47, Boulevard de l'Hopital, F. 75, Paris, 13, France /Indications and results of monoamine treatment in the parkinsonian syndrome./ Indications et resultats du traitement par les monoamines dans les syndromes parkinsoniens. **Revue Neurologique (Paris). 127(1):79-97, 1972.**

Two research experiments using L-dopa and L-dopa inhibitor with decarboxylase in the treatment of parkinsonian syndromes are reported. Parkinsonian subjects (aged 45-80, 79 females and 91 males) were treated with L-dopa in doses of 1.75mg to 4mg daily over a period of 10 to 13 months. Results indicated extreme improvement in 29 cases; good improvement in 53 cases; moderate improvement in 36 cases; mediocre improvement in 10 cases; and no reaction in 4 cases. Twenty eight subjects stopped treatment due to intolerance to the drug. Secondary effects included digestive and cardiovascular disorders, involuntary movements, therapeutic fluctuations and psychiatric reactions such as depression, hypomania, delirium and mental deterioration (all of which could possibly be related to the advanced age of most of the experimental subjects.)Forty nine subjects (31 male; 18 female; ages 45-72) were administered the L-dopa inhibitor and decarboxylase over a 12-month period. Results indicate severe secondary reactions in nearly all subjects including a gastroduodenal ulcer, severe cardiovascular difficulties, psychic reactions, therapeutic fluctuations and notable involuntary movements. Therapeutic results were not as positive as with the previous L-dopa treatment and indicate that L-dopa is effective in postencephalic parkinsonian symptoms but of little therapeutic value in neuroleptic types of the disease. The need for slow psychopharmaceutical progression in parkinson treatment is stressed.

150221 Rondot, P.; Ribadeau Dumas, J.-L. Clinique des Maladies du Systeme Nerveux, Hopital de la Salpetriere, 47, Boulevard de l'Hopital, F. 75- Paris, 13, France /Dopamine and abnormal movements./ Dopamine et mouvements anormaux. **Revue Neurologique (Paris). 127(1):99-113, 1972.**

An electromyographical evaluation of involuntary movements produced by L-dopa, 6-OH-DA, in parkinsonian subjects is presented. Strong dosages (200mg) of L-dopa were administered to 79 parkinsonian subjects over an 18-month period. Twenty five percent of these subjects experienced abnormal, involuntary movements of the dystonic, athetose, cariate and myoclonic muscles. These muscle group reactions and their correlation to parkinsonian trembling, dyskinesia, Huntington's chorea, sclerosis and spasmotic torticolus are analyzed. The nature of L-dopa's muscular, neural and psychic effects is discussed.

150254 Bremond, G.; Bertoni, R.; Vidal, A. Faculte de Medecine, Marseilles, France /Psychopathological factors in Meniere's disease./ Les facteurs psychopathologiques dans la maladie de Meniere. **Therapeutique (Paris). 48(1):61-62, 1972.**

Meniere's syndrome is discussed with respect to etiology, clinical symptoms, and treatment. It is considered to be a psychosomatic disease, appear-

ing concomitantly with emotional stress. Since one of the major symptoms of this disease is giddiness, the use of pharmacodynamic agents that act on the vegetative centers and on the vasomotor structures of the internal ear is recommended. The action of sulpiride was investigated in 40 patients. Improvement was shown in four cases with Meniere's disease who had suffered from a neurovegetative disequilibrium which caused feelings of dizziness and nystagmus. The improvement included an abatement of anxiety.

150425 Copperman, Reuben; Copperman, Gertrude; Marderosian, Ara Der. School of Medicine, University of Pennsylvania, Philadelphia, PA Securinine: a central nervous system stimulant is used in the treatment of amytrophic lateral sclerosis. **Pennsylvania Medicine 76(1):36-41, 1973.**

The clinical effects of securinine, an alkaloid derived from a plant found in Asia, are illustrated in a case history of a patient with amyotrophic lateral sclerosis (ALS). The drug was administered in tablet and injected forms. The latter was more effective in relieving symptoms of the disease. It did not cause remission. Securinine appears to be nontoxic. Some Russian and Chinese studies are discussed. It has been used in therapy of asthenic conditions, neurasthenias with severe fatigue, cardiac insufficiency, paralysis (including poliomyelitis), and impotence of neurogenic origin. It is contraindicated in hypertension, arteriocardiosclerosis, Basedow's disease, acute and chronic nephritis and hepatitis, meningitis, epilepsy, and tetanus. 12 references.

150550 Green, Richard P.; Scales, Shirley M.; Rosser, Pearl L. Child Development Center, Dept. of Pediatrics, Howard Univ. College of Medicine, Washington, DC Oral medications for minimal brain dysfunction in children. **Journal of the National Medical Association. 65(2):157-160, 1973.**

The use and effects of various oral medications on minimal brain dysfunction was studied in 25 children. The children, 20 males and 5 females, ranged in age from 4 to 11 years old. Three questionnaires to evaluate the children's reactions to their environments were devised, one for the physician, one for the parent and one for the school. The following drugs were used: dextroamphetamine (Dexedrine), methylphenidate (Ritaline), thioridazine (Mellaril), phenobarbital, chlorpromazine (Thorazine), diazepam (Valium), and diphenylhydantoin (Dilantin). For ten (40%) who were on medication for hyperactivity, the medication was tapered off followed by total discontinuation. Fifteen (60%) children were maintained on medication after having been switched from one drug to another with a general pattern of an overall increase in medication. Most children while on medication responded to siblings in a friendly, positive manner and showed a marked improvement in behavior pattern, learning ability and attention span. The most frequently experienced side-effects of medication were: 1) increase in irritability; 2) loss of sleep and 3) loss of appetite. The need for a multitherapy program of habilitation and rehabilitation, which may include medication, for hyperactive children is stressed. 2 references.

150747 Lukaszewicz, Andrzej; Komar, Danuta; Tolwinski, Tomasz. Klinika Chorob Psychicznych, Akademia Medyczna Bialystok, Poland /Experiences with chlormethiazol (Hemineurine)./ Doswiadczenia wlasne z chlorometiazolem (hemineuryna). **Psychiatria Polska (Warszawa). 6(5):551-556, 1972.**

The effect of hemineurine administered either in capsule form (300mg, average 4-6 per day) or intravenously (0.8% solution) to 68 patients (41 less than 40, 10 over 60-years old) was evaluated. The patients included 16 with different neuroses, 25 with depression of various etiologies, 17 with psychoorganic syndromes, 3 with schizophrenia, 5 with chronic alcoholism, 2 alcoholic delirium. Marked improvement was obtained in 45.6%, moderate in 41.2% and no improvement in 13.2%. Complete remission was not achieved in any of these patients. The drug was most effective in insomnia of various etiology especially in geriatric patients, alcoholic delirium, psychomotor excitation, anxiety states and certain psychosomatic symptoms especially headaches of vascular origin. It was less effective in cases of psychomotor inhibition, depression and hypochondriacal complaints accompanying various syndromes. The drug was usually well tolerated, side-effects were minimal. Its action was judged to be only symptomatolytic. 8 references. (Author abstract modified)

150749 Lech-Sobczak, Andrzej. Zaklad Resocjalizacyjny, Areszt Sledczy, Elblau, Poland /Neuroleptic treatment of prisoners with mental abnormalities./ Z zagadnien leczenia neuroleptycznego skazanych z anomaliami psychicznymi. **Psychiatria Polska (Warszawa). 6(5):563-567, 1972.**

Neuroleptics in doses ranging from 50 to 200mg daily were administered to 42 prisoners with different mental abnormalities (psychopathy, character disorders, mental debility). Approximately half were alcoholics. Only 16 of the 42 received the drugs on a systematic basis for 2 months or more; 26 interrupted treatment sooner. The drugs had a beneficial effect on the prisoners' general behavior but their influence on affect and impulse and on psychomotor drive was slight. The prisoners were reluctant to submit to systematic treatment in the belief that the drugs were harmful. In addition, they expected a euphoric effect which the neuroleptics did not afford. 6 references. (Author abstract modified)

151004 Hanzal, F. Neurologicka Klinika Fakulty Vseobecneho Lekarstvi Karlovy Universita, Prague 2, Katerinska 30, Czechoslovakia /Specific chemotherapy of the most frequent sudden nervous diseases./ Ucelna farmakoterapie nejcastejsich nahlych onemocneni nervovych. **Prakticky Lekar (Praha). 53(6):209-211, 1973.**

An overview of the use of psychopharmaceuticals for treating various nervous system disorders is presented. In the frequent cerebrovascular accidents intravenous injection of 10ml syntophyllin is indicated except in cases of acute myocardial infarction. In subarachnoidal hemorrhages 10% calcium gluconate with an ampule of Dolcin is injected i.v. In epileptic grand mal seizures Dormiral or phenobarbital is administered i.m. or s.c. In cases of repeated consecutive seizures valium and glucose are also injected. Migraine treatment by i.m. injection of dihydroergotamine is discussed.

151011 Servit, Z. Fyziologicky Ustav CSAV, Karlovo nam. 32, Prague 2, Czechoslovakia /Current status of chemotherapy of epilepsy./ Soucasny stav farmakoterapie epilepsie. **Prakticky Lekar (Praha). 53(5):167-171, 1973.**

In the evaluation of antiepileptic drugs, properties considered include the specificity of the antiepileptic effect, the specificity to a certain type of seizure, the positive psychotropic effect, knowledge of action mechanism, drug dependence, toxic effect on CNS, hematopoietic toxic effect, and other toxic effects. Five groups of drugs are currently used in the therapy of epilepsy. The oldest antiepileptics are bromides, barbiturates were introduced in 1912 (Luminal), hydantoinates (Dilantin) in 1938. Petit mal is controlled specifically by oxazolidindiones and by succinimides (ethosuximide, Zarontin, Petinimid). The most recent drugs used as antiepileptics are antidepressives. The choice of drug is governed by the type of seizure, characterized by motor, psychic, and EEG symptomatology, by the age of the epileptic and by the relationship of the seizures with respect to the sleep cycle. The frequent compound seizures which are difficult to treat, require a combination of drugs selected experimentally. 6 references.

151012 Kristof, M. Fyziologicky Ustav CSAV, Praha, Czechoslovakia /Classification of epilepsy from a therapeutic aspect./ Klasifikace epilepsii z hlediska lecby. **Prakticky Lekar (Praha). 53(5):171-178, 1973.**

The three principal etiological pathogenetic types of epilepsy are reflex or sensory epilepsy where the epileptogenic stimulus is the principal etiopathogenic factor, focal or partial epilepsy where the epileptogenic focus is the principal etiopathogenic factor, and generalized epilepsy where the principal etiopathogenic factor is high acquired or hereditary susceptibility to seizures. These three principal types are further subdivided by symptomatological, electroencephalographic, and other criteria into partial focal epilepsy, Jackson's motor seizures, adversive motor seizures, petit mal seizures, propulsive petit mal seizures, myoclonic astatic petit mal seizures, nonpycnoleptic petit mal seizures, impulsive petit mal seizures, and sleep, awakening and diffuse grand mal seizures. This classification by Z. Servit combining etiopathological with symptomatic criteria and observing age and sleep rhythm has the practical advantage of differential treatment of each group. A chart of antiepileptic psychopharmaceuticals which are preferred for each type of epilepsy is presented. 30 references.

151014 Neumann, Helmut. St. Antonius-Krankenhaus, 4446 Horstel/Westfalen, Germany /Thoughts on treatment of addiction: experiences with Arginil (glucose-1-phosphate-arginine)./ Gedanken zur Suchtbehandlung. Erfahrungen mit Arginil (Glucose-1-Phosphat-Arginin). **Therapie der Gegenwart (Munchen). 112(2):260, 263-264, 266-267, 269, 1973.**

Results of the treatment of alcoholic patients with glucose-1-phosphate-arginine (Arginil) are described. With this new preparation a rapid subsidence of hyperhydrosis may by obtained as well as that of tremors and motor unrest; this treatment is particularly suitable for alcoholics in

acute withdrawal. Occasionally, supplementary medication for night sleep is desirable. An immediate treatment with Arginil is indicated in all alcoholics admitted in the predelirium stage, especially in patients who are over 50 years old, in whom there may be symptoms of liver and vascular complications. No side-effects were observed with this treatment. (Author abstract modified)

151046 no author. no address Enuresis again. **British Medical Journal (London). No. 5858:69, 1973.**

The incidence, possible causes, and treatment of enuresis are discussed, as well as the personality and family characteristics of the enuretic child. Bedwetting may be due to faulty learning or conditioning, psychological stress, or delay in the maturation of the relevant part of the nervous system. Imipramine or other tricyclic antidepressants may prove effective, although the possibility of side-effects or overdose warrants caution in their prescription and use. The electric buzzer is highly effective if used properly for a long enough period of time (rarely less than 3 months), and the relapse rate is lower than with imipramine treatment. Scolding or reprimanding the child tends to cause further psychological problems. 8 references.

151201 Lance, J. W.; Anthony, M. Dept. of Medicine, Prince Henry Hospital, Anzac Parade, Little Bay, N.S.W. 2036 Cyclobenzaprine in the treatment of chronic tension headache. **Medical Journal of Australia (Sydney). 2(25):1409-1411, 1972.**

The efficacy of cyclobenzaprine (30 to 60mg/day) as an adjunct in the management of chronic tension headache was evaluated via a double-blind crossover study with 20 patients. Of the 17 patients who completed the 1-month trial period on the active drug, five became virtually headache free, and the condition of five others improved by more than 50%. Of 19 patients treated with a placebo, none became free of headache, and the conditions of only five were improved by 50%. Side-effects were not a problem, except in one case in which cyclobenzaprine treatment had to be discontinued because of epigastric discomfort. Further trial of cyclobenzaprine in the treatment of chronic tension headache is recommended since it appears to be as effective as amitriptyline and to have fewer side-effects. 7 references. (Author abstract)

151268 Barcellos Ferreira, Alvaro; Barcellos Ferreira, Ary; Beschoren Sourza, Tania. Departamento de Medicina Interna da Faculdade de Medicina da Univ. Fed. do Rio Grande do Sul /Pharmacological treatment of cerebral arteriosclerosis with a new drug combination./ Tratamento farmacologico da arteriosclerose cerebral com nova associacao medicamentosa. **Revista Brasileira de Medicina (Rio de Janeiro). 30(2):114-118, 1973.**

Results of experiments which combined piritinol with betapiridilcarbinol in the treatment of 25 patients with cerebral arteriosclerosis are presented. In 80% of the cases, the association of the two drugs proved extremely efficacious with little or no side-effects exhibited. The psychic sphere also benefited, showing better behavior, ambient relationship, and principally better memory fixation and evocation. The general state of the nutritional and physical disposition of the patients improved as some developed a greater appetite in the process. Interruption of treatment proved that dosage must continue to secure positive results. Although the treatment is not a cure as much as a relief, its use in geriatric medicine is strongly recommended. 16 references. (Author abstract modified)

151377 Zwozdziak, Wlodzimierz. ul. Langiewicz 19, Poznan, Poland /New drugs in the treatment of parkinsonism./ Nowe srodki w leczeniu parkinsonizmu. **Wiadomosci Lekarskie (Warszawa). 25(22):2021-2023, 1972.**

A brief review on the use of L-dopa and amantadine in the treatment of parkinsonism is presented. Optimal dosages of L-dopa are usually 3-4g; treatment should be started with 0.5g/day and increased 0.5g every 3 days until optimal dose is reached. Concomitant employment of a dopa decarboxylase inhibiting compound (MK 485) is recommended since it reduces the amount of L-dopa necessary to obtain the same therapeutic effect. The usual dose of amantadine hydrochloride is 200mg/day. The drug is often used in conjunction with L-dopa and anticholinergic agents. 10 references.

151380 Danecka, Urszula; Krawecki, Tadeusz; Oczkowski, Zbigniew. Szpital Zakazny, ul. Zjednoczenia 10, Chorzow, Poland /Severe infectious hepatitis complicated with acute psychosis during hydrocortisone treatment./ Ciezka zoltaczka zakazna powiklana ostra psychoza w trakcie leczenia hydrokortyzonem. **Wiadomosci Lekarskie (Warszawa). 26(1):61-64, 1973.**

A case of severe infectious hepatitis complicated by acute poisoning during hydrocortisone therapy is described. Psychotic symptoms with delusions, anxiety, aggression and agitation appeared on 22nd day of hospitalization after a total dose of 1600mg hydrocortisone administered over a 7-day period. Injection of librium in 100mg and of valium in 10mg per day doses proved ineffective. The patient responded to haloperidol initially administered in 10mg/day dose, then reduced to 2mg/day and given for 32 days between the 29 and 60th day of hospitalization. No side-effects were noted. Acute symptoms of psychosis lasted for 17 days and disappeared 10 days after haloperidol was initiated. Because of the extremely serious condition of the patient, hydrocortisone was not continued and a total of 4175mg of this drug was administered. 21 references. (Author abstract modified)

151395 Lopez-Ibor Alino, J. M.; Lopez-Ibor Alino, J. J.; Darder Cirera, J. M. Instituto de Investigaciones Neuropsiquiatras. Depto. de Psiquiatria y Psicologia Medica de la Univ. Compultense, Madrid, Spain /Carbamazepine (tegretol) in the treatment of delirium tremens./ La carbamacepina (tegretol) en el tratamiento del delirium tremens. **Actas Luso Espanolas de Neurologia, Psiquiatria y Ciencias Afines (Madrid). 1(0):77-82, 1972.**

The efficacy of carbamacepine in the treatment (sedation) and prophylaxis of delirium tremens (D.T.)was studied in 116 subjects: 48 treated with carbamacepine alone; 25 with distraneurine; 36 with a combination of both; and 10 with the usual neuroleptics. The maximum dosage given was 2400mg repeated every 24 hours; the mean value of the treatment duration was 48 hours. Results showed no difference between carbamacepine with distraneurine and carbamacepine alone, although experiments proved the combination more effective in more acute cases. Comparing the results of carbamacepine over a 24-hour period, it was found to be the most efficacious treatment used against D.T. without any serious alterations in blood or urine analysis. 4 references. (Author abstract modified)

151452 Corbett, J. A. Bethlem Royal Hospital, Croydon, England Behavioural and drug treatment of children with severe mental handicap. **British Journal of Hospital Medicine (London). 8(2):141-144, 1972.**

The use of drugs or behavior modification techniques as the sole form of treatment in the retarded child is discouraged; a full range of measures including family therapy, counseling, and support in its broadest sense, as well as individual psychotherapy and carefully planned environmental manipulation is recommended. The use of behavior modification, through reinforcement or reward for desired behavior, with retarded children is discussed. The particular problems of this approach and its use for language development on severely handicapped children are explored. A suggested list of the major and minor tranquilizers, the barbiturates, the stimulants, antidepressants and anticonvulsants and guidelines for proper dosage are presented. 20 references. (Author abstract modified)

151512 Butler, Robert N.; Lewis, Myrna I. Howard Univ. School of Medicine, Washington, DC Drug and electroshock therapy. **In: Butler, R., Aging and mental health. St. Louis, Mosby, 1973. 306 p. (p. 247-255).**

Discussed is the amelioration of symptoms of mental disorder involving a variety of modalities: drugs, social activities, physical exercise, and psychotherapy. This is especially important in treatment of anxiety, depression and agitation in the elderly. Drugs are deemed as only one component of an organized treatment plan. Psychotropic drugs include the antidepressants, tranquilizers, hormones, vitamins, anticoagulants, cerebral vasodilators, and specialized medications. Wine and alcoholic preparations are used in geriatric medicine, although alcohol potentiates drugs and narcotics and is used with caution. Some pyschoactive drugs have caused death in old people, and proper safeguards and monitoring are necessary whenever sedating or hypnotics are prescribed. If drugs do not prove effective in severe depression, electroshock treatment (EST) may be indicated. Another modality claimed to be beneficial in chronic brain syndrome is hyperbaric oxygenation. However, this claim is disputed by current researchers. 9 references.

151685 Rinne, U. K. Dept. of Neurology, University of Turku, Turku, Finland Recent advances in the treatment of parkinsonism with drugs. **Acta Neurologica Scandinavica (Supplement) (Kobenhavn). 48(51):59-103, 1972.**

A review of the pharmacotherapy of Parkinson's disease focuses on treatment with L-dopa, anticholinergic drugs and dopamine analogues.

Clinical studies are reviewed which demonstrate that hypokinesia, rigidity and tremor respond to long-term treatment with L-dopa. Some clinical variables which govern a patient's response to L-Dopa are discussed. The number of functional dopaminergic neurons in the brain may be the most significant factor in the therapeutic response to L-dopa. Adverse reactions or clinical side-effects observed in 119 patients were classified as gastrointestinal, autonomic, involuntary movements, mental disturbances, and increase in libido. Peripheral inhibition of L-dopa by L-aromatic aminoacid decarboxylase (dopa decarboxylase) may reduce peripheral adverse effects. A clinical trial is described of the effects of L-Dopa and decarboxylase inhibitor (Ro 4-4602) in long-term treatment and results are compared with those for L-dopa alone. Differences were found in the concentrations of 5-hydroxyindoleacetic acid and homovanillic acid in the cerebrospinal fluid (CSF) but there was no correlation with the therapeutic response. Clinical side-effects were similar, but L-dopa with inhibitor reduced nausea and vomiting. Mental changes are the most serious side-effects with L-Dopa. Impairment of attention span, short-term memory and depression, anxiety, and psychotic behavior may be present in L-dopa treatment. L-Dopa treatment may also be contraindicated in disorders of liver and renal function, cardiovascular disorders as well as some mental disturbances. The interactions of L-dopa with other drugs are discussed, including pyridoxine, dopamine analogues, drugs which interfere with amine metabolism, etc. Metabolic aspects and mode of action of L-Dopa are discussed. 169 references.

151688 Dietrichson, Per. Dept. of Neurology, Ullevaal Hospital, Oslo, Norway Treatment of Parkinsonism with L-dopa and decarboxylase inhibitor: an electrophysiological study. **Acta Neurologica Scandinavica (Supplement) (Kobenhavn). 48(51):111-113, 1972.**

An electrophysiological study of bradykinesia, tremor and rigidity was undertaken in parkinsonian patients who received L-dopa and a decarboxylase inhibitor (Ro 4-4602) and in patients receiving Ro 4-4602 alone. Findings indicate that a similar improvement may be achieved by a small L-dopa dose together with decarboxylase inhibitor (in a ratio of 4:1) as by a dose of L-dopa, ten times larger, alone. The combination medication produced myoclonic-choreatic spontaneous movements, and the effect of the dose (0.2g L-dopa; 0.05g Ro 4-4602) lasted no more than 2 to 3 hours. A better ratio than 4:1 might avoid these shortcomings. A dose of Ro 4-4602 (0.125g) in formerly untreated parkinsonian patients resulted in improvement. 1 reference.

151690 Fehling, Clas. Dept. of Neurology, University of Lund, Lund, Sweden Administration of amantadine to patients on optimum L-Dopa dosage. **Acta Neurologica Scandinavica (Supplement) (Kobenhavn). 48(51):119-120, 1972.**

The therapeutic effects of amantadine were evaluated in 24 parkinsonian patients on optimum L-dopa dosage. Statistical analysis of the total scores of the patients showed significant improvement on amantadine over placebo and no improvement on placebo as against pretreatment scores. Of the groups of subscores, only rigidity and autonomic dysfunction did not improve significantly on amantadine. Dryness of mouth and facial skin rash were the only side-effects that could be attributed to amantadine. It is suggested that amantadine be administered as an adjunct to L-dopa in patients responding favorably to the latter drug.

151691 Holmsen, R.; Kvan, L.; Presthus, J.; Thoresen, G. B. Dept. of Neurology, Ullevaal Hospital, Oslo, Norway Treatment of Parkinsonism with a compound of L-dopa (Larodopa) and a decarboxylase inhibitor (Ro 4-4602). **Acta Neurologica Scandinavica (Supplement) (Kobenhavn). 48(51):121;122, 1972.**

The effects of treatment with a compound of L-dopa and decarboxylase inhibitor (Ro 4-4602) were studied in 12 patients with idiopathic parkinsonism. Two patients had discontinued L-dopa treatment because of side-effects; 10 patients could not tolerate increased dosage of L-dopa because of side-effects. Patients were administered Ro 8-0576, containing 200mg L-dopa and 50mg Ro 4-4602. Results showed that the optimal therapeutic effect of the compound is equal to that of L-dopa alone, but is achieved sooner. Nausea and vomiting did not occur. In some cases, involuntary movements occurred with greater intensity than appeared in patients on L-dopa only. Many patients showed a markedly dose dependent and not a continuous therapeutic reaction to the medication. A few patients presented psychic disturbances. Biochemical studies and liver biopsy in 6 patients revealed no abnormal findings.

151692 Julsrud, Ole-Jorgen. Dept. of Neurology, Molde County Hospital, Molde, Norway Treatment failures with L-dopa in parkinsonism. **Acta Neurologica Scandinavica (Supplement) (Kobenhavn). 48(51):123-124, 1972.**

A review of 51 cases of parkinsonism treated with L-dopa supports the contention that patients with marked mental disorders, especially connected with cerebral arteriosclerosis, are not well suited for L-dopa treatment. Improvement especially with regard to bradykinesia and rigidity was noted in 73% of the patients. Side-effects occurred in 55%, mostly gastrointestinal and mental disturbances. In 10 cases L-dopa had to be discontinued, in 8 because of mental symptoms. Of these 10 patients, two probably had a postencephalitic type of parkinsonism, six presented signs of cerebral arteriosclerosis with dementia before treatment, one showed signs of dementia, and two presented distinct mental disorders. In pretreatment investigations, several exhibited abnormal EEGs and signs of cerebral atrophy. Mental side-effects consisted of hallucinations, increased libido, anxiety, nightmares, depression, and insomnia. Most of the 10 patients improved when L-dopa was discontinued.

151694 Mikkelsen, Bent; Dupont, Eril; Worm-Petersen, Jorgen. Dept. of Neurology, Glostrup Hospital, Copenhagen, Denmark The influence of L-dopa on physical treatment of parkinsonism. **Acta Neurologica Scandinavica (Supplement) (Kobenhavn). 48(51):127-128, 1972.**

A physiotherapy program for parkinsonian patients receiving L-dopa is discussed. While traditional drugs and stereotaxic surgery call for palliative physiotherapy to relieve discomfort, L-dopa provides possibilities for reeducation of the normal patterns of movement and posture which is not achieved by treatment with L-dopa alone. A program of intensive daily occupational and physical therapy provides individual treatment and treatment in groups of 12. Results in a group of 12 patients with paralysis agitans treated as inpatients for 16 weeks demonstrated an effect of L-dopa on hypokinesia, rigidity and even tremor. A remarkable improvement of the patients' physical capabilities was achieved, possibly due to physical therapy. The therapeutic setup emphasizes counteracting the flexor dominance in all muscle groups and restoring normal patterns of movement and balance; training the patient's general condition to compensate for disabilities; stimulating patients to a more positive attitude through group therapy. In and outpatients participate in the group therapy program twice weekly for at least 8 weeks.

151696 Presthus, J.; Holmsen, R. Dept. of Neurology, Ullevaal Hospital, Oslo, Norway Long-term treatment of parkinsonism with L-dopa. **Acta Neurologica Scandinavica (Supplement) (Kobenhavn). 48(51):131-132, 1972.**

The effects of L-dopa treatment were studied from December 1968 to May 1971 in 208 parkinsonian patients. Fifty five were excluded because of contraindications to therapy (18); side-effects resulting from L-dopa treatment, discontinued before 3 months (24); unsatisfactory followup (10); patient was on L-dopa treatment on admission (3). The remaining 153 patients, followed from 3 to 30 months, included three cases of postencephalitic parkinsonism; the remaining had idiopathic parkinsonism. Patients were examined clinically according to a questionnaire. The effect of extensive tests for liver and kidney function and blood morphology were undertaken. A favorable therapeutic effect on rigidity, hypokinesia and tremor was noted, most markedly for rigidity, less for hypokinesia and tremor. Gait disturbances were influenced and self-care improved. In the first 6 months nausea, vomiting and anorexia were the most troublesome side-effects; thereafter, involuntary movements were the main side-effects. L-dopa therapy was discontinued after more than 3 months in several patients because of such side-effects as psychoses and delirious state. Results demonstrate that despite the therapeutic effect of L-dopa, about 20% of parkinsonian patients did not benefit from it.

151805 Merdeyev, A. R.; Mozhanova, R. V. Kazan, USSR /On clinicoimmunologic correlations in the evaluation of remissions in patients with delayed epileptic psychoses./ O kliniko-immunologicheskikh korrelyatsiyakh pri otsenke remissiy u bol'nykh zatyazhnymi epilepticheskimi psikhozami. **In: Portnov, A., Epilepsiya (klinika, patogenez, lecheniye). Moscow, Institut psikhiatrii MZ RSFSR, 1972. 543 p. (p. 465-466). 2 rub.**

Investigation of patients with delayed epileptic psychoses has shown that in some cases, long-term administration of large doses of chlorpromazine to these patients results in short-term improvement but is followed by a worsening of the psychotic state. Similar conditions are provoked by long-term administration of the drug to schizophrenic patients. In a study of comple-

ment fixation reactions to chlorpromazine, analogous results were obtained in epilepsy and schizophrenia. The complement fixation reaction was negative, weakly positive, and positive in a group of patients in a state of remission, but remission turned out to be shortlived in patients who had shown a positive reaction.

151806 Andreyeva, N. N. no address /Peculiarities of the treatment of epileptic patients with psychomotor paroxysms./ Osobennosti terapii bol'nykh epilepsiyey s psikhomotornymi paroksizmami. **In: Portnov, A., Epilepsiya (klinika, patogenez, lecheniye). Moscow, Institut psikhiatrii MZ RSFSR, 1972. 543 p. (p. 484-488). 2 rub.**

Seventy three epileptic patients with psychomotor paroxysms were treated with a combination of antiepileptic substances together with antiinflammatory, dehydrating, desensibilizing, and generally reinforcing therapy, the choice of the particular antiepileptics and their combination with other medical preparations being determined by the structure of the paroxysms, the clinical picture of interparoxysmal disorders, and the localization of the epileptic nucleus. Carbamazepine alone or in combination with benzonal, caffeine, and chloracone was used in the treatment of patients with psychomotor paroxysms with temporal lobe localization of the nucleus. In cases of diencephalic localization, carbamazepine was less effective, and the best results were obtained with small doses of phenobarbital combined with equal or several large doses of caffeine together with diphenine, hexamidine, and medium doses of chloracone.

151807 Ruzhanskiy, M. I.; Kravchenko, A. D.; Mozias, M. R. no address /Some data on tegretol therapy for patients with epilepsy./ Nekotoryye dannyye o lechenii tegretolom bol'nykh epilepsiyey. **In: Portnov, A., Epilepsiya (klinika, patogenez, lecheniye). Moscow, Institut psikhiatrii MZ RSFSR, 1972. 543 p. (p. 488-491). 2 rub.**

Clinical practice with 26 epileptic patients (14 with true epilepsy and 12 with symptomatic epilepsy) has confirmed the high effectiveness of carbamazepine as therapy for paroxysmal as well as mental disorders in epileptics. Carbamazepine was administered in combination with anticonvulsive preparations which had been received previously by the patients but which had had little effect. In the process of treatment with carbamazepine, hypochondriacal and cenesthopathic disorders disappeared entirely or decreased, and some alleviation of epileptic personality changes was seen in the late stages of treatment. Individually determined small doses of carbamazepine in combination with phenobarbital constituted successful supportive therapy.

151809 Lukomskiy, I. I.; Churkin, E. A. no address /On some new possibilities for the therapeutic use of tegretol in the psychiatric clinic./ O nekotorykh novykh vozmozhnostyakh lechebnogo primeneniya tegretola v psikhiatricheskoy klinike. **In: Portnov, A., Epilepsiya (klinika, patogenez, lecheniye). Moscow, Institut psikhiatrii MZ RSFSR, 1972. 543 p. (p. 493-498). 2 rub.**

Carbamazepine was used successfully with 55 patients with alcoholic delirium, 38 of whom were in the second stage and 17 in the third stage of chronic alcoholism. Carbamazepine was administered initially in doses up to 1200mg daily. Subsequently, in view of the absence of side-effects and the relative duration of improvement in the psychotic state (within 68 hours on an average), the doses were increased to 1800mg daily and ultimately to 2400mg daily. Following disappearance of psychotic symptomatology, carbamazepine was removed immediately or gradually and was followed by administration of massive doses of vitamins. A positive aspect of the use of carbamazepine in cases of alcoholic delirium, aside from its significant abbreviation of the delirious episode, was the absence of somatic contraindications.

151810 Afanas'ev, Yu. I.; Averbakh, Ya. K. no address /Use of leptril in the treatment of dysphorias in epileptic patients./ Primeneniye leptrila pri lechenii disforiy u bol'nykh epilepsiyey. **In: Portnov, A., Epilepsiya (klinika, patogenez, lecheniye). Moscow, Institut psikhiatrii MZ RSFSR, 1972. 543 p. (p. 502-506). 2 rub.**

A clinical trial with administration of leptril (perimethazine) to 30 epileptic patients with dysphoric states yielded a positive effect in 23 cases which allowed them to have a shorter inpatient stay, improved the condition of six others, and only in one patient produced no change. Leptril administration was initiated perorally in a dose of 25mg, which was raised subsequently to as much as 300mg daily, depending upon the clinical manifestations of dysphoria, its depth, and its duration. Leptril, like the majority of phenothiazine derivatives, probably produced its potentiating effect in combination with barbiturates. Supportive doses of leptril did not exceed 150mg daily in evenly divided doses three times a day.

151811 Ordyanskaya, A. B. no address /Peculiarities of the treatment of epileptic dysphorias in outpatient practice./ Osobennosti lecheniya epilepticheskikh disforiy v dispansernoy praktike. **In: Portnov, A., Epilepsiya (klinika, patogenez, lecheniye). Moscow, Institut psikhiatrii MZ RSFSR, 1972. 543 p. (p. 507-510). 2 rub.**

Twenty eight patients with dysphorias in epilepsy were treated effectively on an outpatient basis with a combination of anticonvulsants and psychopharmacological agents. When the anxious depressive affect was marked, tryptizol and amitriptyline were the drugs of choice. In cases when therapy with antidepressants was relatively ineffective, however, and when this form of treatment might also aggravate the anxiety component of dysphoria, combinations of antidepressants with small doses of neuroleptics were required. In situations of heightened reactions and sleep disturbances, minor tranquilizers were indicated. No serious complications were seen throughout therapy.

152030 Lukas, Emma R.; Hambacher, William O.; Fallica, Anthony J. Research Department, Woodville State Hospital, Box 456, Carnegie, PA 15106 A note on the use of anticoagulant therapy in chronic brain syndrome. **Journal of the American Geriatrics Society. 21(5):224-225, 1973.**

A single-blind study on the use of anticoagulant therapy in eight male geriatric patients with chronic brain syndrome was performed. One subgroup received an anticoagulant drug (Dicumarol) and the other received a cerebral vasospasmolytic drug (papaverine, Cerespan). The subjects receiving anticoagulant therapy performed significantly less well on the Graham - Kendall test (for organic abnormalities) both immediately after, and 3 months after cessation of a 4-month course of treatment. Scores from the Mental Status Questionnaire indicated a significant improvement in psychological functioning after treatment. However, the apparent contradiction in these results could be attributed to differences in the maintenance of positive effects engendered by the initial high levels of motivation. These findings suggest that a carefully controlled study involving more patients and more varied measuring techniques would add useful information to the understanding of chronic brain syndrome. 6 references. (Author abstract modified)

152031 Maurer, Albert S. Hopedale Medical Complex, Hopedale, IL 61747 Management of emotional disturbances in geriatric patients. **Journal of the American Geriatrics Society. 21(5):226-228, 1973.**

Drug and nondrug management of emotional disturbances in geriatric patients are discussed. The flexibility and continuity of care provided by the hospital, outpatients, nursing and rehabilitative facilities of a comprehensive health care complex can serve the needs of the aged patients ideally. A program of total health care oriented toward the particular medical, psychologic and socioenvironmental problems of aging is recommended. Behavioral disturbances in the geriatric patient often are associated with disrupted social patterns, organic illness, and feelings of inadequacy and uselessness. Emotional disorders, if neglected, may hinder or prevent effective health care. The objective is to identify all sources of disturbance to the patient, to eliminate adverse stimuli, to reassure the patient by providing emotional support and understanding, and to institute the required medical, rehabilitative and nursing care. A 12-day trial of thioridazine in the treatment of 27 patients is described. The drug was found to be a valuable asset in the management of senile anxiety, agitation, depression and related behavioral disturbances. By means of a systematic program, emotional disorders in the elderly can be promptly recognized and treated. Thus, health care will be enhanced and many geriatric patients can be restored to a practical level of functioning. 2 references. (Author abstract modified)

152066 Yaffe, Sumner J.; Bierman, C. W.; Cann, H. M.; Gold, A. P.; Kenny, F. M.; Riley, H. D.; Schafer, I.; Stern, L.; Weiss, C. F. no address Use of d-amphetamine and related central nervous system stimulants in children. **Pediatrics. 51(2):302-305, 1973.**

The Committee on Drugs of the American Academy of Pediatrics presents a report on the value of d-amphetamine use in children and considers forms of misuse. Hyperkinesis syndrome and narcolepsy are considered the only valid indications for the amphetamine therapy in children and low dosages of d-amphetamine in these ailments does not appear to result in toxicity or in dependence in adulthood. Use in treating obesity or depression in children is discouraged, and its use in athletic competitions is condemned. Areas of misuse are discussed and pediatricians and other physicians are warned on the possibility that use of d-amphetamines may mask symptoms of

illnesses and cause difficulty in making accurate diagnoses. 12 references.

152111 Jacobi, P.; Maxion, H.; Schneider, E.; Fischer, P.-A. Neurolog. Abt. d. Psychiatrischen u. Neurologischen Univ.-klinik, Heinrich Hoffmann Str. 10, 6 Frankfurt/Main-Niederrad, West Germany /Short-term effects of adamantylamine sulfate infusions in Parkinson patients./ Kurzzeiteffekte von Adamantylaminsulfat-Infusionen bei Parkinson-Kranken. **Pharmakopsychiatrie Neuropsychopharmakologie (Stuttgart). 5(6):313-322, 1972.**

Short-term effects of adamantylamine sulfate (i.v. 200mg in 500ml levulose over 24 hr) are described in 20 Parkinson patients, in a double-blind study. Evaluation included clinical observation, electromyography (EMG), and various psychological tests. Tests were conducted before and immediately after the administration of drug or placebo, 2 hr, 6 hr and 24 hr later. Clinical changes varied from patient to patient, but the drug effect on Parkinson symptoms was seen at about the 2 hr interval with an improvement of the tremor and, in some patients, an elevation of mood. The EMG results showed a slight diminution of action tremors and a decrease in amplitude from 73% to 59%, whereas the controls increased from 63 to 88%. The tremor was also found to improve in the psychological tests. Rigor decreased according to EMG, although not definitely observed clinically, and in the psychomotor and akinesis and rigor measurements the results were slight. It is concluded that adamantylamine sulfate exercises a positive effect on the Parkinson syndrome, although the short-term observations are not marked. 37 references.

152212 Claghorn, James L. Texas Research Institute of Mental Sciences, Houston, TX 77025 A double-blind comparison of haloperidol (Haldol) and thioridazine (Mellaril) in outpatient children. **Current Therapeutic Research. 14(12):785-789, 1972.**

A double-blind comparison of haloperidol (Haldol) and thioridazine (Mellaril) was conducted with 63 children under the age of 12 years who exhibited the symptomatology of childhood psychiatric and psychotic disorders, behavioral difficulties, and mental retardation. Patients were randomly assigned to one of two treatment regimens, and medication was administered in identical appearing capsules which contained 0.5mg haloperidol or 10mg thioridazine. The maximum allowed dosage was 10mg haloperidol or 200mg thioridazine. Patients were evaluated pre- and poststudy and at intervals during therapy. Physical and laboratory determinations were obtained, and symptomatological evaluation was based on a specially designed Checklist of Home Behavior and global physician ratings. The therapeutic benefits of haloperidol concentrated in the area of behavioral improvement during homework, the drug also appeared faster in its inducement of favorable response (significance by treatment week 8) than did thioridazine, and required a far smaller dosage in milligrams. These conditions may be considered as possible advantages over the phenothiazine, but data suggest that haloperidol and thioridazine are essentially the same in treatment efficacy. 4 references. (Author abstract modified)

152867 Altman, Harold; Mehta, Dinesh; Evenson, Richard C.; Sletten, Ivan W. Missouri Institute of Psychiatry, 5400 Arsenal St., St. Louis, MO 63139 Behavioral effects of drug therapy on psychogeriatric inpatients. I. Chlorpromazine and thioridazine. **Journal of the American Geriatrics Society. 21(6):241-252, 1973.**

The behavioral effects of chlorpromazine and thioridazine were studied in 132 psychogeriatric inpatients treated for six weeks with one of three medication regimens. Treatments were: 1) chlorpromazine vs. thioridazine, studied double-blind; 2) a single bedtime dose of drug vs. fractional doses throughout the day; and 3) different total daily dosages (30, 60, 90 or 120 mg). Schizophrenic and nonschizophrenic subgroups were evaluated, as well as the total sample. Results were negative for treatments one and two, but total dosage was significantly correlated with factor scale changes. The pattern of changes was different for the two diagnostic subgroups. The findings on side-effects indicated that raters were confounding side-effects and therapeutic effects. 13 references. (Author abstract modified)

152868 Altman, Harold; Mehta, Dinesh; Evenson, Richard C.; Sletten, Ivan W. Missouri Institute of psychiatry, 5400 Arsenal St., St. Louis, MO 63139 Behavioral effects of drug therapy on psychogeriatric inpatients. II. Multivitamin supplement. **Journal of the American Geriatrics Society. 21(6):249-252, 1973.**

Behavioral effects of treatment with a B-complex and C vitamin supplement were studied in 132 psychogeriatric inpatients in a double-blind regimen. Patients were relaed on the Missouri In-

patient Behavior Scale. The only significant finding was a decrease in pathologic manifestations on the excitment scale for a nonschizophrenic subgroup of the sample treated with vitamins compared to the placebo group. Implications of this finding are discussed in terms of a detailed examination of the excitement scale and a literature review of the effects of vitamin therapy on the behavior of psychogeriatric patients. 13 references. (Author abstract modified)

153097 Meyerhoff, James L.; Snyder, Solomon H. Walter Reed Institute of Research, Washington, DC Gilles de la Tourette's disease and minimal brain dysfunction: amphetamine isomers reveal catecholamine correlates in an affected patient. **Psychopharmacologia (Berlin). 29(3):211-220, 1973.**

Graduated doses of d and l-isomers of amphetamine were administered on several occasions in a double-blind fashion to a patient with symptoms of both Gilles de la Tourette disease and minimal brain dysfunction. d-Amphetamine markedly increased the frequency of ticking while l-amphetamine did not alter the tics. By contrast both isomers decreased the patient's hyperactivity to a similar extent. Based on the known differential influence of amphetamine isomers upon brain norepinephrine and dopamine, the findings suggest that aggravation of the tics is mediated by brain norepinephrine while brain dopamine plays a major role in the alleviation of the symptoms of minimal brain dysfunction. 29 references. (Author abstract)

153263 Broe, Gerald A.; Caird, F. I. Department of Neurology, Lidcombe Hospital, Lidcombe, New South Wales, Australia Levodopa for parkinsonism in elderly and demented patients. **Medical Journal of Australia (Sydney). 1(13):630-635, 1973.**

Twenty one elderly patients with idiopathic parkinsonism administered small increments (.125g every 4 days) and low maintenance (1.7g) doses of levodopa were examined. Twelve of the 16 patients who completed six months of levodopa therapy showed improvement in mental function despite advanced age, severe disability and dementia. Neuropsychiatric side-effects were mild and infrequent when levodopa was used alone. It is suggested that elderly patients and those in a deteriorated condition with parkinsonism should be considered for levodopa therapy with a slow increment low dosage regimen. Cardiac and gastrointestinal side-effects can be mitigated by gradual initiation of therapy. Dementia is not a contraindication and may lessen during treatment with this regimen. Therapy should commence in the hospital under prolonged observation. The long-term effects of levodopa on mental function are unknown. 28 references. (Author abstract modified)

153614 Jus, A.; Villeneuve, A.; Gautier, J.; Pires, A.; Cote, J. M.; Jus, K.; Villeneuve, R.; Perron, D. Research Division, St. Michel-Archange Hospital, Quebec, Canada Influence of lithium carbonate on patients with temporal epilepsy. **Canadian Psychiatric Association Journal (Ottawa). 18(1):77-78, 1973.**

A study to determine whether lithium carbonate favorably influences epileptic seizures, behavior disorders, and electroencephalogram (EEG) patterns of patients with temporal epilepsy is reported. In the first part of the study, a single (600mg to 900mg) dose of lithium carbonate did not influence the EEG patterns of the patients. The second phase, which was to evaluate the therapeutic effect of lithium in the same group, had to be interrupted after two weeks, following the administration of 600mg of lithium carbonate daily, because seizures increased in three patients, behavior became impaired in four patients, and the EEG pathology was augmented in five. More research is needed to elucidate the controversial problem of lithium treatment for chronic epileptic patients. 7 references.

154690 Mottin, J. L. Department of Psychology, University of Guelph, Guelph, Ontario, Canada Drug-induced attenuation of alcohol consumption: a review and evaluation of claimed, potential or current therapies. **Quarterly Journal of Studies on Alcohol. 34(2):444-472, 1973.**

A review of the literature on drug treatments in alcoholism, including antidipsotropics, aversives, ataractics, and hallucinogens, is presented and the question of whether active drugs are effective or necessary additions to alcoholism treatment aimed at attenuating alcohol consumption is discussed. The antidipsotropics reviewed are: disulfiram, citrated calcium cyanamide, and metronidazole. The aversion therapies reviewed are: emetics, curariforms, and sympathomimetics. No pharmacological therapeutic effectiveness was found. 192 references. (Journal abstract modified)

154783 Chandra, Benjamin. Division of Neurology, University of Airlangga, School of Medicine, Indonesia Treatment of Parkinson's syndrome with a combination of levodopa and thiethylperazine -- a preliminary study. **Journal of Medicine (Hong Kong). 8(8):336-338, 1972.**

A report is made of the use of a combination of levodopa and thiethyl-perazine in the treatment of Parkinsonism in a double-blind clinical trial performed on 18 patients. Nine patients received l-dopa alone, and the other nine were given l-dopa combined with thiethyl-perazine. This combination required smaller doses of l-dopa and produced fewer side-effects. The probable mechanism of action of this combination is discussed. 15 references. (Author abstract modified)

155866 Malitz, S. no address L-Dopa and behavior. New York, Raven Press, 1972. 144 p. $9.75.

L-Dopa and its effect on behavior are studied. A possible role of dopamine in the pathogenesis of mental diseases is discussed, followed by biochemical studies to show the differences between norepinephrine and dopamine nerve terminals. Behavioral effects of L-dopa when administered to patients with Parkinson's disease are also discussed. Behavioral effects resemble those produced by amphetamines. Some patients were disappointed that L-dopa did not alter their condition and became depressed. Three studies on the treatment of depression are presented. Only one patient showed a significant decrease in depression when L-dopa was administered, and it is suggested that the improvement may have resulted from variables not controlled in the study. L-dopa was not effective in alleviating impotence, and when administered to psychotic patients, L-dopa aggravated their psychotic symptoms.

156155 Greenhill, Laurence L.; Rieder, Ronald O.; Wender, Paul H.; Buchsbaum, Monte; Zahn, Theodore P. Rousso Bldg., 1165 Morris Park Ave., Bronx, NY 10461 Lithium carbonate in the treatment of hyperactive children. **Archives of General Psychiatry. 28(5):636-640, 1973.**

Nine severely hyperactive children, unresponsive to drugs and psychotherapy, were placed on a 3-month modified double-blind trial of lithium carbonate alternating with dextroamphetamine or placebo. Six children showed no improvement or a worsening of symptoms when given lithium carbonate and one dropped out of the study. Two children who improved transiently had been observed to have affective symptoms and differed on psychophysiological measures from the rest of the group. Average evoked potential data using visual stimuli indicated all nine children resembled other hyperactive children who were unresponsive to amphetamine, showing similar augmenting responses to both dextroamphetamine and lithium carbonate. Lithium carbonate appears to be a safe drug for investigation in children, but is inadequate for treating hyperactive children unresponsive to stimulant medication. Eight case histories are presented. 15 references. (Author abstract modified)

156250 Leung, Lit-bun. Pok Oi Hospital, New Territories, Hong Kong An analytical survey of the management of trigeminal neuralgia. **Asian Journal of Medicine (Hong Kong). 8(11):473-481, 1972.**

An analysis is presented of the treatment of 86 patients suffering from trigeminal neuralgia, seen in the neurosurgical department of Queen Elizabeth Hospital, Hong Kong, in a 6-year period (1965 to 1970). The patients were treated by the following methods: Tegretol, gasserian ganglion injection, craniectomy and section or decompression of the ganglion, Dilantin and peripheral nerve injection. Patients under 40 were usually given a trial of Tegretol. Gasserian ganglion injections were given to those who could not tolerate Tegretol or those whose neuralgic pain was not controlled by the dose of 600mg a day or less. Patients aged over 70 were also given Tegretol. The patients between the ages of 40 and 69 were usually advised to have surgical treatment. The results suggest a comparatively high success rate for craniectomies and Tegretol treatment and a less favorable situation for percutaneous ganglion injection. The general trend, however, favors an initial treatment with Tegretol. 1 reference. (Author abstract modified)

156552 Tolwinski, Tomasz; Bernadska, Anna. Klinika Chorob Psychicznych, Akademia Medyczna, Bialystok, Poland /A case of Turner's syndrome with psychic disturbances./ Przypadek zespolu Turnera z zaburzeniami psychicznymi. **Wiadomosci Lekarskie (Warszawa). 26(7):649-653, 1973.**

A case of cytogenetically confirmed Turner's syndrome with coexisting hypochondriacal

depressive symptoms in a 46-year-old woman is described. Excellent therapeutic results consisting of disappearance of depression and numerous somatic complaints were achieved with antidepressant treatment (imipramine with thioridazine). The patient was discharged after 37 days and, continuing antidepressive therapy, is well 6 months later. It is stressed that, in spite of having been seen by a number of physicians, the case has been misdiagnosed for a long time, indicating the need for a greater awareness of this syndrome and its frequent association with mental disorders. 12 references. (Journal abstract modified)

156562 Wasik, August. Klinika Psychiatryczna, Akademia Medyczna, Wroclaw, Poland /Present day possibilities of relieving postneuroleptic extrapyramidal symptoms./ Wspolczesne mozliwosci farmakologicznej kerekcji poneuroleptycznych zespolow pozapiramidowych. **Psychiatria Polska (Warszawa). 7(1):51-56, 1973.**

The indications and contraindications of employing different preparations in the therapy of parkinson like symptoms are discussed. Extrapyramidal syndromes induced by neuroleptic drugs respond to a variety of parasympatholytic agents, especially those whose atropine like central action is more potent than their peripheral action. These include artane, ponalid, and aturban. The disadvantage of these drugs, especially in elderly patients is the cumulative effect of their parasympatholytic properties with similar properties of neuroleptics when they are given in combination. Extrapyramidal disturbances can also be corrected by stimulating the dopaminergic and adrenergic system with sympathomimetic drugs such as benzedrine, pervitine or retaline. This type of therapy is contraindicated in patients with coronary and cerebral arteriosclerosis with hypertension, or in psychoses with increased psychomotor activity and anxiety. Amantadine given in 400 to 500mg daily doses proved to be effective and well tolerated without causing disturbances in the acetylcholine or adrenergic part of the vegetative system. Vitamin-B6 in 600 to 900mg daily doses is slightly effective by improving the metabolism of nerve cells and is recommended for elderly patients. L-dopa is of little use in therapy of postneuroleptic parkinson like symptoms since only the transmission of stimuli is blocked while dopamine remains on satisfactory levels. 21 references. (Journal abstract modified)

156566 Ignatowicz, Roman; Kowalczyk, Krystyna. Panstwowe Sanatarium Neuropsychiatrii Dzieciecej, Nowy Czarnow, Poland /Benzonal in the treatment of epileptic attacks in children./ Spostrzezenia nad stosowaniem benzonalu w napadach padaczkowych u dzieci. **Psychiatria Polska (Warszawa). 7(1):75-78, 1973.**

Benzonal, a barbituric acid derivative was administered in 200 to 600mg/day doses for 4 to 20 weeks to 39 children aged 4-15 years with different forms of epileptic attacks including 29 with attacks due to cerebral lesions of early childhood, four due to concussion, two due to degenerative disease of the brain, and four of unknown cause. Mental disorders such as excessive irritability, psychomotor excitation, behavioral problems and symptoms of dysphoric reactions were present in almost all children. Excellent to good results were obtained in 11 children, good results consisting of at least 50% reduction in frequency of attacks in 9 and moderate improvement in 10. The drug was most effective in children with clonic attacks. All patients responding to therapy also showed marked improvement in mental disorders. The drug was well tolerated; side-effects were infrequent and mild. 3 references. (Journal abstract modified)

156588 Leonova, Yu. I. Khar'kovskiy nauchno-issledovatel'skiy institut nevrologii i psikhiatrii, Kharkov, USSR /Influence of tizertsine and trifluoperazine on mobility of main nervous processes in patients with presenile psychosis./ Vliyaniye tizertsina i triftazina na vysshuyu nervnuyu deyatel'nost' bol'nykh presenil'nym psikhozom. **Zhurnal Nevropatologii i Psikhiatrii imeni S.S. Korsakova (Moskva). 72(12):1878-1882, 1972.**

Fifty four patients with presenile psychosis were examined by means of an associative test, during which verbal responses to differentiated stimuli and to the transformation of their signal meaning were studied. It was established that conditioned speech connections in patients with presenile psychosis were notable for a prolonged latent period with predominant lower speech reactions and with difficulty in the development of differential reactions. It is assumed that these results indicate the weakness of excitative processes and inner differential retardation, an insufficient mobility of the main nervous processes. Doses of tizertsine and trifluoperazine activate the excitative process; moderate and large doses weaken the active cortical process. Tizertsine therapy, along with reestablishing the normal in-

terrelations in the cortical processes, improves their concentration and mobility and decreases the margin safeguarding retardation. A full restoration of the second signal system activity does not occur. 17 references. (Author abstract modified)

156595 Haffter, C. Psychiatrische Universitatspoliklinik fur Kinder und Jugendliche, Schaffhauser Rheinweg 55, CH-4058 Basel, Switzerland /On the therapy of autism./ Zur Therapie des Autismus. **Acta Paedopsychiatrica (Basel). 39(8-10):224-230, 1973.**

Therapeutic methods for the treatment of autism are being developed despite the immense theoretical differences on its nature and etiology. Psychopharmaceutical methods, though certainly preferable to the now generally abandoned surgical and electroshock techniques, require great caution, since many drugs (e.g.,the phenothiazines) reduce the ability of the patient for affective contacts. Long-term drug therapy of autistic children presents the danger of adversely affecting developmental processes. New developments in the therapy of autistic children include O'Gorman's practice of treating autistic along with nonautistic children, and the new emphasis shared by O'Gorman, Lutz, and Mahler on joint therapy of mother and child. A particularly hopeful development is the application of various forms of physical therapy in a rational, systematic fashion, especially psychomotor therapy, originally developed for reeducation of the handicapped. However, the results of any form of treatment remain limited.

156740 Overall, John E.; Hollister, Leo E.; Pokorny, Alex D. Dept. of Neurology and Psychiatry, Univ. of Texas Medical Branch, Galveston, TX 77550 Alcohol history in drug treatment. **Diseases of the Nervous System. 34(4):175-180, 1973.**

Patients with the syndrome of mixed anxiety and depression and/or a prior history of alcohol abuse were treated with phenothiazines and benzodiazepines in two double-blind studies. Patients with histories of alcohol abuse responded better to the phenothiazines, specifically acetophenazine and mesoridazine, but had symptoms of longer duration. Patients whose anxious depression was not complicated by alcohol abuse responded best to benzodiazepines, specifically diazepam and chlordiazepoxide and had a less chronic course. The results emphasize that treatment of depressed patients with drugs is not an automatic reflex based on the choice of an antidepressant drug. It is recommended that the choice of drug for optimal results be based on the type of depressive syndrome and on relevant history variables. 11 references. (Author abstract modified)

156770 Dimond, Richard C.; Brammer, Shelby R.; Atkinson, Richard L., Jr.; Howard, William J.; Earll, Jerry M. Dept. of Endrocrinology and Metabolism, Walter Reed Army Inst. of Research, Washington, DC 20012 Chlorpromazine treatment and growth hormone secretory responses in acromegaly. **Journal of Clinical Endocrinology and Metabolism. 36(6):1189-1195, 1973.**

Eight patients with active acromegaly were treated with 100 to 200mg of chlorpromazine (CPZ) daily for 3 to 6 months to determine the effect of the drug on growth hormone secretory responses. Clinical improvement did not occur in any patient. The mean basal growth hormone (MBGH) levels decreased substantially in only one patient, in whom the MBGH fell from 94.3ng/ml to 56.3ng/ml after 1 month of therapy; further reduction in the MBGH did not occur in spite of continued treatment and doubling of the initial dose of CPZ. The MBGH increased in three patients during therapy. Oral glucose tolerance tests were performed before and during treatment in all patients; and insulin and arginine tolerance tests were performed before and during therapy in six patients. Patterns of GH secretion following the administration of glucose, insulin, and arginine were highly variable in individual patients before and throughout treatment. The data support the hypothesis that GH secretion is not truly autonomous in most patients with acromegaly. 24 references. (Author abstract)

156778 Lavy, S.; Abramsky, O.; Carmon, A.; Yaar, I.; Feldman, S. Hadassah University Hospital, Jerusalem, Israel Certain predictions on the effectiveness of L-DOPA on Parkinsonism. **Zeitschrift fur Neurologie (Berlin). 203(4):271-278, 1973.**

L-DOPA treatment of 69 patients with Parkinson's disease for over a year led to remarkable improvement in akinetic patients, moderate improvement in rigidity and slight improvement in tremor. The degree of improvement in akinesia, rigidity and tremor tended to be inversely related to the severity of the disease. Rigidity and akinesia improved more noticeably in young patients, but improvement in tremor was unrelated to age.

An inverse relation was found between duration of the disease and improvement in rigidity, but no relation between duration and improvement in tremor or kinesia. Side-effects included transient or long-term psychiatric disorders in 22 patients (32%), with recurrent severe psychosis forcing cancellation of treatment in two cases; transient vomiting or nausea in 64 patients (93%); abnormal movements (chorea, dystonia, tics) in 14 patients (20%). Screening to limit L-DOPA treatment to those most likely to benefit is advised. 16 references. (Author abstract modified)

156847 Helwig, H. Kinderkrankenhaus St. Hedwig, Stadtstr. 3, D-7800 Freiburg i. Br., W. Germany /Use of psychopharmacological agents in children./ Psychopharmaka im Kindesalter. **Monatsschrift fur Kinderheilkunde (Berlin). 121(3):114-120, 1973.**

A survey is presented of the most common psychopharmacological agents used in pediatry, their nature, efficacy and indications and contraindications for their use. The pharmacological basis of these drugs is summarized. The classes of drugs discussed are tranquilizers (Meprobamate, Methylpentynol, Hydroxyzine, Chlordiazepoxide, Diazepam, Oxazepam, Nitrazepam) and neuroleptics (Promethazine, Promazine, Chlorpromazine, Thioridazine, Chlorprothixene, Droperidol). Data on their use in German pediatric clinics are presented. 79 references. (Journal abstract modified)

156891 Paal, G. Neurologische Klinik der Universitat, 69 Heidelberg, Voss-Str. 2, W. Germany /On the therapy of the Parkinson syndrome./ Zur Therapie des Parkinson-Syndroms. **Medizinische Welt (Stuttgart). 24(15):573-576, 1973.**

The presently available techniques of therapy, including psychotherapy, for the treatment of Parkinson's disease are reviewed. Causal therapy is rarely possible since most cases are idiopathic, and the usual modes of treatment include the pharmacological (belladonna, scopolamine, l-Hyoscyamine, atropine, phenothiazine, adamantylamine sulfate, and more recently dopamine and L-DOPA); stereotaxic (especially in combination with L-DOPA treatment); physical therapy (including gymnastics to restore lost ability of movement); and psychological. Psychological treatment is of particular importance since Parkinson's disease is usually accompanied by severe depression which hinders the cooperation of the patient in therapy.

157029 Kimura, Bin. Department of Neuropsychiatry, Nagoya Municipal University, Japan Treatment of chronic neurosis by the use of pimozide. **Clinical Psychiatry (Tokyo). 14(8):755-760, 1972.**

The effects of pimozide on chronic psychosis were studied in 25 chronic mental patients suffering from: atypical psychosis, schizophrenia, hallucinatory psychosis, psychasthenia, reactive psychosis, delusion of reference, neurosis, and manic state. The patients were treated with the drug (1-4mg/day) for 1-6 weeks. Results indicated that the drug was effective in 19 patients; the drug proved ineffective in six patients. No side-effects were observed in any patient. It is concluded that pimozide is effective on emotional instability and inactive behavior of atypical psychosis, however, it is ineffective for schizophrenia. 6 references.

157362 Levy, Harold B. Shreveport, LA Imipramine for the hyperkinetic syndrome. **Journal of the American Medical Association. 225(5):527, 1973.**

Successful therapeutic use of imipramine in management of the hyperkinetic syndrome in a 10-year-old male and minimal brain dysfunction in a 21-year-old male is related. Dosage recommendations and possible complications are discussed. It is conceded that the histories of one or two patients are not conclusive, but it is hoped that continuing evidence of the benefits of these medicines will overcome the prejudice built up against them. 3 references.

158152 Booker, Harold E.; Celesia, Gastone G. 1954 E. Washington Ave., Madison, WI 53704 Serum concentrations of diazepam in subjects with epilepsy. **Archives of Neurology. 29(3):191-194, 1973.**

Relationships between serum concentrations of diazepam and interictal epileptiform discharges are examined. Serum diazepam concentrations were monitored during a series of intravenous diazepam injections in patients with epilepsy. Suppression of spontaneous specific epileptiform paroxysmal discharges and protection against stroboscopic stimulation in photosensitive subjects were correlated with the serum concentrations, and the results were compared to a series of patients taking diazepam orally. The results suggest that suppression of spontaneous discharges is more a function of high serum con-

centrations of diazepam than it is of the electroencephalogram classification. The failure of diazepam orally as an anticonvulsant in many subjects may be related to serum concentrations significantly lower thatn those found necessary to suppress interictal epileptiform discharges following intravenous injection. 10 references. (Author abstract modified)

158296 Pinelli, Paolo. Clinica Neurologica, Via Palestro 3, Universita di Pavia, Pavia 27100, Italy Electromyographic evaluation of drug-induced muscle relaxation. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 559-564).**

Electromyographic evaluation of drug induced muscle relaxation was examined. Abnormal motor hyperactivity due to an increase of descending impulses, facilitating activity of lower motor centers was considered for administration of muscle relaxants and the methodology suitable for detecting the basic functional disturbance to be treated was also considered. Types of muscular hyperactivity requiring attenuation and an evaluation of different aspects of motor hyperactivity are included. Positive and negative conditions in the use of muscle relaxants are explored. Case studies of Parkinson's disease where the abnormal increase of reflex postural activity contributes to the impairment of motor performance and the administration of L-dopamine to reduce the descending impulses are reported. Low, oral doses of diazepam appears to be useful in some cases of spasticity characterized by continuous motor unit activity at rest and during tonic stretch where motor performance is improved through a reduction of the abnormal activity present in antagonistic muscles. 7 references.

158298 Kaim, Samuel C. Alcohol and Drug Dependence Service, VA Central Office, Washington, DC 20420 Benzodiazepines in the treatment of alcohol withdrawal states. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 571-575).**

A literature study of the use of benzodiazepines in the treatment of alcohol withdrawal states is reported. A series of reports are concerned with the use of chlordiazepoxide (CDP) or Librium for patients with seizures, delirium tremens, nervousness, loss of sleep and appetite, tremor, alcoholic hallucinosis and acute alcoholic brain syndrome. CDP gave the best results in treatment when compared to promazine and diazepam. A high degree of cross dependance with alcohol was shown by CDP. A VA study concluded that CDP should be the drug of choice in the prevention of delirium tremens and convulsions during the acute alcoholic withdrawal state. The importance of sedation in the management of delirium tremens is noted. 14 references.

158345 Harlin, Vivian K. Seattle Public Schools, Seattle, WA Help for the hyperkinetic child in school. **Journal of School Health. 42(10):587-592, 1972.**

The detection and treatment of the hyperactive school child is described. School procedures for diagnosis and the role of the parent, physician and teacher are discussed. The treatment of the hyperactive child is directed first to changing the environment of the child to enable him to improve, and secondly, to altering the reaction of the child to environment by the use of medications. Specific drugs, their dosages and effects, are discussed, and four case studies are presented. 5 references.

159352 Yaffe, Sumner J. Dept. of Pediatrics, State Univ. of New York at Buffalo School of Medicine, Buffalo, NY Drug disposition in the fetus and newborn infant. **Rhode Island Medical Journal. 56(7):280-285, 297, 1973.**

Major processes which determine drug disposition within the newborn infant are summarized. The process of drug absorption, distribution, metabolism and excretion are major factors determining the duration and intensity of drug action. A study of the absorption and excretion of riboflavin was made with healthy, 5-day-old, full-term infants and revealed differences in urinary excretion, absorption and distribution of the vitamin from that of older infants, children and adults. An investigation of the plasma protein binding of diphenylhydantoin in heparinized plasma from normal and hyperbilorubinemic newborn infants indicated differences from that of adults. The activity of glucuronyl transferase was revealed as absent or of very low capability in the guinea pig fetus and newborn when compared to the adult. A discussion of the supranormal peak for a variety of metabolic processes is included. 13 references.

159398 Monroe, Russell R. Institute of Psychiatry and Human Behavior, University of Maryland School of Medicine, Baltimore, MD Pharmacologic treatment of aggression. **Conditional Reflex. 8(3):171, 1973.**

Two studies of violent acts as a result of central nervous system instability utilizing Alpha-chloralose as an activating agent and the treatment of these acts using anticonvulsants such as chloridiazepoxide were discussed. Subcortical electrograms suggest that the instability is related to a circumscribed ictal phenomena in the limbic system. In one study, chlorpromazine or trifluroperazine increased the activation rates among patients while chlordiazepoxide decreased the activation rate by 20%. In the second study, involving severely disturbed chronically psychotic hospitalized patients whose aggressive uncontrolled outbursts relegated them to locked wards and often to isolation rooms despite high doses of phenothiazines, a regimen of chlordiazepoxide and/or primidone added to current medication led to dramatic improvement in 23 patients, some improvement in 17 others, and no response in 15. (Author abstract modified)

159408 Field, Leopold H. The Metropolitan Hospital, London, E.8, England Benperidol in the treatment of sexual offenders. **Medicine, Science and the Law (London). 13(3):195-196, 1973.**

The use of benperidol, a synthetic neuroleptic drug with chemical and pharmacological properties similar to those of haloperidol, in the treatment of sexual offenders was studied. A group of 28 men considered to be intelligent and cooperative was selected; all had been convicted of sexual offenses against children. The universal findings were abolition of sexual desire and inability to obtain an erection either as the result of fantasy or of masturbation. These results suggest that benperidol will be of value as an antilibidinous drug in the treatment of sexual offenders selected on the basis of intelligence, cooperation, and stability. 2 references.

160221 Grof, S.; Soskin, R. A.; Richards, W. A.; Kurland, A. A. Maryland Psychiatric Research Center, Box 3235, Baltimore, MD 21228 DPT as an adjunct in psychotherapy of alcoholics. **International Pharmacopsychiatry (Basel). 8(1-2):104-115, 1973.**

The usefulness of dipropyltryptamine (DPT) as an adjunct to psychedelic therapy was explored in 51 alcoholic patients. The psychological tests involved the Minnesota Multiphasic Personality Inventory (MMPI), Personal Orientation Inventory (POI), Raven Progressive Matrices, Psychiatric Evaluation Profile (PEP), and Benton Visual Retention Test. A dramatic improvement was observed on a variety of psychological test variables; in many of them the pre and postdifferences reached a high level of statistical significance. In the followup a statistically significant improvement was found in all the measured parameters of the social history questionnaire. The pretreatment to followup differences on the scales of interpersonal adjustment, abstinence and global adjustment reached a high degree of statistical significance. A high rating of more than 8 on the 10 point scales measuring global adjustment and drinking behavior was considered an indicator of essential rehabilitation. On the basis of this definition the number of essentially rehabilitated patients was 46.8% in regard to global adjustment, and 53.2% in regard to abstinence. A total of 18 patients (38.2%) remained completely abstinent for the entire month followup period. 17 references. (Author abstract modified)

160643 Ban, T. A.; Lehmann, H. E.; Amin, M.; Galvan, L.; Nair, N.P.V.; Vergara, L.; Zoch, C. Div. of Psychopharmacology, Dept. of Psychiatry, McGill University, Montreal, Quebec, Canada Comprehensive clinical studies with trazodone. **Current Therapeutic Research. 15(8):540-551, 1973.**

Comprehensive clinical studies with trazodone are reported. Trazodone is the first triazolopyridine compound under clinical investigation. While findings in animal pharmacological studies with trazodone suggest psycholeptic properties, the results of a psychometric study in normal volunteers suggest that the new drug may have antidepressant effects. The antidepressant properties of trazodone were substantiated in three clinical trials. On the basis of findings in one of the three completed studies, the possibility that trazodone may have a therapeutic effect in organic brain syndrome patients was raised. 11 references. (Author abstract modified)

160644 Merrick, Edward M.; Schmitt, Phyllis P. Metropolitan State Hospital, Waltham, MA A controlled study of the clinical effects of amantadine hydrochloride (Symmetrel). **Current Therapeutic Research. 15(8):552-558, 1973.**

The clinical effects of amantadine hydrochloride (Symmetrel) were investigated. The treatment of patients for relief of extrapyramidal symptoms was successful in all cases given amantadine hydrochloride. All patients on amantadine had none or minimal anticholinergic side-effects. The point as to whether amantadine exerts a more prolonged antiparkinson effect than current an-

tiparkinson agents should be considered in future research. It is apparent that amantadine hydrochloride is a safe and effective agent for the treatment of drug induced parkinsonism with rapid onset of action. The drug could be preferred because of the low incidence of side-effects. 6 references. (Author abstract modified)

160951 MacFarlane, M. David. School of Pharmacy, Univ. of Southern California, Los Angeles, CA 90007 Possible rationale for procaine (Gerovital H3) therapy in geriatrics: inhibition of monoamine oxidase. **Journal of the American Geriatrics Society. 21(9):414-418, 1973.**

The relative effectiveness of Gerovital H3 (a specially formulated preparation of procaine hydrochloride), commercial procaine hydrochloride (Novocaine) and iproniazid as monoamine oxidase (MAO) inhibitors was studied by means of tests involving serotonin and kynuramine metabolism by rat brain MAO. Gerovital H3 was a more effective MAO inhibitor than iproniazid. Gerovital H3 seemed to have a selective affinity for certain multiple forms of MAO. In light of recent observations on MAO levels and aging, results may offer a rationale for Gerovital H3 therapy in the elderly. 31 references. (Author abstract modified)

161278 Sizaret, P.; Degiovanni, A.; Penaud, J. no address /A discriminative study of the action of a psychotropic drug by the use of the B.P.R.S. cards./ Etude discriminative de l'action d'un psychotrope par emploi des fiches B.P.R.S. **Encephale (Paris). 61(4):316-324, 1972.**

The effect of a new neuroleptic, Oxaflumazine, a phenothiazine was studied in a group of 34 patients and evaluated by means of the Pichot-Overall B.P.R.S. Patients were 20 schizophrenics, and 14 patients with nonschizophrenic delusions, character instability, excitomotor syndrome, hysteria and bouts of delirium. Dosage level varied between 50 and 200mg/day. In addition to the B.P.R.S. items, clinical evaluation was determined before and after treatment. Significant improvement in anxiety, tension, hostility and guilt feelings was indicated; less improvement was seen in cooperation and in distrust. There was no improvement in unusual thoughts, hallucinatory behavior, excitation or mannerisms. Significant exacerbation was seen in depressive tendency, blunting of affect and motor retardation; effects may be attributable to secondary effects of neuroleptics in general.

161279 Martin, J.-C.; Ferrant, J.-P.; Dumerc, C. Centre Louis Sevestre, 37-La Membrolle-sur-Choisille, France /Dibencozide and alcoholic mental deterioration./ Diebencozide et deterioration mentale alcoolique. **Encephale (Paris). 61(4):325-332, 1972.**

Effects of dibencozide (Indusil T.)on alcoholic patients who manifest mental deterioration, are described. The anabolic action of this compound is well known, particularly in connection with DNA and RNA synthesis. The Wechsler-Bellevue scale and a subtest of the visual retention test of Benton were used for evaluating mental deterioration. The study was conducted in 20 male chronic alcoholic Ss, hospitalized for 1 to 3 months. The mean IQ (Wechsler-Bellevue) was 110; all patients presented a mental deterioration (mean was 19.25%), although some patients had minimal deterioration. Indusil T. was administered at a dose level of 1 ampoule per day for the first week and subsequently at a level of three capsules per day for between 37 and 98 days. A 50% recuperation was allowed for the effect of abstinence. The mean percentage of recuperation with the Indusil T. in the 20 patients was 76%, thus crediting the drug with a 26% positive effect. 2 references.

161331 Sherwin, Ira; Hooge, John P. Neurological Unit, Boston City Hospital, 818 Harrison Avenue, Boston, MA 02118 Comparative effectiveness of natural sleep and methohexital: provocative tests in electroencephalography. **Neurology. 23(9):973-976, 1973.**

Intravenous methohexital was compared with natural sleep for its ability to provoke diagnostic epileptiform discharges in the EEG of known and suspected temporal lobe epileptics. Twenty one patients with a diagnosis of temporal lobe epilepsy and several patients with a long history of poorly controlled seizures were studied. Based on their histories and routine EEG findings, they were assigned to one of three categories. Natural sleep records were obtained following 22 to 26 hours of sleep deprivations. In the methohexital test, each dose was injected intravenously over an 8 to 10 second interval. It was concluded that as an aid in the diagnosis of epilepsy, no demonstrable superiority of methohexital over natural sleep was evident. The potentially dangerous side-effects of methohexital and its requirement for the presence of a physician are also seen as serious drawbacks to its routine use. Its potential value as an adjunct to electrocorticography during operation for epilepsy is discussed. 15 references. (Author abstract modified)

161385 Grof, S.; Goodman, L. E.; Richards, W. A.; Kurland, A. A. Maryland Psychiatric Research Center, Box 3235, Baltimore, MD 21228 21228 LSD-assisted psychotherapy in patients with terminal cancer. **International Pharmacopsychiatry (Basel). 8(3):129-144, 1973.**

Potential of a psychotherapeutic program utilizing psychedelic compounds to alleviate the emotional and physical suffering of cancer patients is discussed. Therapeutic results were assessed by means of a rating scale reflecting degree of the patients' depression, psychological isolation, anxiety, difficulty in management, fear of death, and pain. Ratings were done by physicians, nurses, family members, LSD therapists, and independent raters. Systematic rating was carried out in a group of 31 cancer patients treated with LSD (200 to 500 micrograms per ounce). Comparison of the means of individual ratings from pretreatment to posttreatment showed significant improvement in all measured parameters for most of the raters. There was a reduction of narcotic medication. Twenty nine percent of the patients showed dramatic improvement, 41.9% moderate improvement, and 22.6% were essentially unchanged. 16 references. (Author abstract modified)

161661 Lewis, P. J. E.; James, N. Mcl. Department of Psychological Medicine, Otage University Medical School, Dunedin, New Zealand Haloperidol and chlorpromazine: a double-blind cross-over trial and clinical study in children and adolescents. **Australian and New Zealand Journal of Psychiatry (Carlton, Australia). 7(1):59-65, 1973**

The symptoms, traits, and behavior of a sample of disturbed children are discussed in relation to a period during which they were given a sequence of psychoactive drugs, a placebo, and a no drug period. The observable dynamics of the parent - child interaction and the relationship this has to the effects of psychoactive drugs are assessed. After an assessment period of two weeks, the subjects entered a three month on - drug period, during which each one of the three drugs (haloperidol, chlorpromazine, and placebo) was given for one month in a double-blind cross-over procedure. A postdrug followup at 1 and 6 months was included. Assessment was made using scales measuring 10 target signs or symptoms of childhood mental illness, the functioning of the child in the family, and the quality of parent - child interaction. Twenty two children completed the trial; eight had improved in their condition and were considered successful. It was concluded that: 1) there was no statistical advantage between haloperidol, chlorpromazine, and placebo; 2) if the parent - child interaction improved and the 10 point symptom scale decreased in parallel through and after the eighth week, the outcome of the treatment was uniformly successful; and 3) depressive illness in the parents was common and dominated other psychiatric disturbances.

162069 Conley, Daniel Peter. Arizona State University Effects of Ritalin on hyperkinetic children attending the Glendale elementary schools. (Ed.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-20427 HC$10.00 MF$4.00 162 p.**

Seventy hyperkinetic children from the Glendale Elementary Schools, Glendale, Arizona, were studied to evaluate the effects of Ritalin drug therapy for hyperkinetic children performing 12 tests of visual motor functioning, short-term auditory and visual memory, auditory and visual attention span, word recognition and retention skills, and levels of hyperactivity. Conclusions drawn from the study show that short-term Ritalin therapy can be an effective means of improving visual motor functioning and reduction of hyperactivity of hyperkinetic children in a regular school setting. (Journal abstract modified)

162170 Overall, John E.; Brown, Dan; Williams, Jack D.; Neill, Lex T. Department of Neurology and Psychiatry, University of Texas Medical Branch, Galveston, TX 77550 Drug treatment of anxiety and depression in detoxified alcoholic patients. **Archives of General Psychiatry. 29(2):218-221, 1973.**

The therapeutic value of representative drugs of the phenothiazine, benzodiazepine, and tricyclic classes for treatment of anxiety and depression in detoxified alcoholics was studied. Drugs were given in dose ranges ordinarily used with patients with similar symptoms but without alcohol histories. Benzodiazepine was less effective at the low dose level than the phenothiazine or tricyclic drugs. Cross-tolerance between alcohol and benzodiazepines is proposed as a possible explanation for the results. Findings may have implications, not only for management of alcoholic patients, but also for use of psychotropic drugs in treatment of anxiety and depression in other patients with histories of alcohol abuse. 20 references. (Author abstract modified)

162311 Swerdlow, M. Pain Relief Clinic, Salford Hospital Group, Manchester, England Relieving pain in the terminally ill. **Geriatrics. 28(7):100-103, 1973.**

Drugs, nerve blocking therapy, and correction of metabolic changes are discussed as methods of relieving pain in the terminally ill. Chronic pain may be perpetuated because the pain memory patterns are established in the neural protein metabolism. In the context of intractable pain in terminal illness, addiction and drug dependency are not serious problems, and should not deter the physician from giving adequate analgesic medication. New and better drugs continue to offer the prospect of more effective oral medication. Studies suggest that metabolic changes occur in association with intractable pain; correction of these changes should help relieve pain. An increasing number of pain clinics are being set up, so that nerve blocking therapy will become more widely available. 10 references.

163216 Rosenbaum, M. G. Albuquerque, NM Estrogen in treatment of the male climacteric. **Rocky Mountain Medical Journal 70(9):37-38, 1973.**

Good control of male climacteric nervous symptoms in 100 males suffering from various types of arthritis was obtained by giving estrogen orally or intramuscularly. No local or general disturbance occurred when moderate doses were given. Estrogen is a specific medication for the male climacteric, superior to tranquilizers and sedatives and preferable to testosterone in controlling male climacteric disturbances. 2 references. (Author abstract modified)

163331 Evans, W.; Gensler, F.; Blackwell, B.; Galbrecht, C. Dept. of Psychiatry, College of Medicine, Univ. of Cincinnati, Cincinnati, OH 45229 The effects of antidepressant drugs on pain relief and mood in the chronically ill: a double-blind study. **Psychosomatics. 14(4):214-219, 1973.**

An attempt to evaluate the analgesic and antidepressant effects of the tricyclic drug doxepin in a controlled double-blind study using chronically sick patients taking less potent analgesics is reported. The 18 patients were mostly white and female and over 70 years old. Denial, depression and hostility were measured. Results show a marked reduction in analgesic needs that averaged over 70% from baseline in both drug and placebo groups, even when a population was selected with a relatively chronic and stable degree of analgesic use and even when the actual use of drugs was taken as an objective measure of pain reduction. The study served as a reminder of what human contact can accomplish in the chronically ill and leaves unanswered the issue of the study. 17 references.

163647 Nathan, Peter E. Psychological Clinic, Rutgers Univ., New Brunswick, NJ Review of behavioral techniques. **In: Chafetz, M., Proc. of the 1st Ann. Alc. Conf. of the NIAAA. Rockville, MD, NIAAA, 1973. 377 p. (p. 122-126).**

A review of the behavioral techniques used in the treatment of alcoholism is presented. A brief history of functional psychology and operant conditioning is included. Three phases in the development of behavioral techniques for treatment of alcoholics are traced, including aversion therapy and behavior modification. 15 references.

163681 Weber, M. B. North York General Hospital, Willowdale, Ontario, Canada The treatment of muscle contraction headaches with diazepam. **Current Therapeutic Research. 15(4):210-216, 1973.**

Treatment of muscle contraction headaches with diazepam is discussed. In maximum dosages of 15mg daily, diazepam proved to be safe, relatively free of side-effects, and did not demonstrate tolerance in followups several months later. Dangers of traditional analgesic and barbiturate therapies do not pertain to diazepam, suggesting that it is the drug of choice in the management of tension headaches. 11 references. (Author abstract modified)

163682 Ananth, J. V.; Bronheim, L. A.; Klingner, A.; Ban, T. A. Dept. of Psychiatry, McGill University, Montreal, Quebec, Canada Diazepam in the treatment of insomnia in psychiatric patients. **Current Therapeutic Research. 15(4):217-222, 1973.**

Diazepam is discussed in the treatment of insomnia in psychiatric patients. A total of 60 Ss participated in a double-blind, placebo controlled, comparative clinical trial. Effects of chloral hydrate, diazepam, and secobarbital were studied. Diazepam was comparable to secobarbital or chloral hydrate in effectiveness. No statistically significant differences could be established between groups. Findings in a structured interview indicate that the best overall sleep was obtained with secobarbital and the best sleep induc-

tion was obtained with diazepam. The research psychiatrist rated secobarbital best, while patients rated diazepam best. 4 references. (Author abstract modified)

164699 Kentsmith, David K.; Carter, Thomas N. University of Nebraska College of Medicine, Omaha, NB 68105 Progressive cerebellar dyssynergia: The use of diazepam. **Journal of the Kansas Medical Society 74(4):138-139, 180, 1973.**

A case of progressive cerebellar dyssynergia of Ramsey Hunt is reported. Only 13 new pure cases of this disease have been reported since 1914, when Hunt first described three cases of dyssynergia cerebellaris progressiva. In addition to the intention (volitional) tremor which is the most striking and characteristic symptom, dyssynergia, dysmetria, hypotonia, adiadokokinesia, and intermittent asthenia are also components of this syndrome. Review of existing literature on this syndrome is discussed in relation to the case mentioned. The incidence of neurological abnormalities in the patient's family is mentioned. Chromosome studies of the patient did show that 15 to 18% of those cells examined had karyotypes which are abnormal. Differential diagnoses are considered. This patient had severeal episodes of numbness and tingling of the extremities between 20 and 30, when the disease set in. Diazepam was functional in decreasing the tremors that developed in this case. 4 references. (Author abstract modified)

164871 Post, Robert M.; Goodwin Frederick K. , Laboratory of Clinical Science, NIMH, Bethesda, MD 20014 Estimation of brain amine metabolism in affective illness: cerebrospinal fluid studies utilizing probenecid. Rockville, MD, NIMH, 1973. 21 p.

Alterations in the probenecid induced accumulation of 5-hydroxyindoleacetic acid (5HIAA) and homovanillic acid (HVA) produced by amine precursors and synthesis inhibitors were examined to provide evidence for the validity of this technique in the estimation of central nervous system amine turnover. Differences in the probenecid induced accumulation of 5HIAA and HVA were then examined in normal controls, a small group of addicts on methadone, and patients with affective illness according to diagnostic subgroups, severity of various symptoms and response to treatment. Finally two tricyclic antidepressants, imipramine and amitriptyline were examined for their effects on the probenecid induced accumulation of 5HIAA and HVA. 68 references.

165371 Turek, I. S.; Ota, K.; Brown, C.; Massari, F.; Kurland, A. A. Clinical Sciences Division, Maryland State Psychiatric Research Center, Baltimore, MD 21228 Tiotixene and thioridazine in alcoholism treatment. **Quarterly Journal of Studies on Alcohol. 34(3):853-859, 1973.**

A double-blind study designed to evaluate the efficacy of and side-effects produced by tiotixene, thioridazine and a placebo in alcoholics is presented. There were no differences in effectiveness between placebo and thioridazine and tiotixene in the control of anxiety and depression in alcoholics, possibly because psychiatric assessments relied heavily on the patients' subjective accounts in addition to therapist observations. The behavioral improvement in all groups may be related more to detoxication or hospital care than to drug administration. The rapid improvement in the first 2 weeks may have been the result of spontaneous recovery from toxic states. Psychophysiological measurements failed to produce any significant differences between the placebo and drug treated groups. Forearm blood flow changes did not follow the symptom changes observed in clinical evaluations. 16 references.

166364 Fann, W. E.; Lake, C. R.; Gerber, C. J.; McKenzie, G. M. Duke University Medical Center, Durham, NC Physostigmine in tardive dyskinesia in the elderly. **Gerontologist. 13(3, Part II):55, 1973.**

The effects of physostigmine, neuroleptic anticholinesterase, on body movement in elderly patients with tardive dyskinesia (TD) were investigated to test the hypothesis that in this condition there is relative dopaminergic overactivity and relative diminution of CNS cholinergic function. Ss were 55 to 70 years old. Peripheral, but not central, cholinergic action was blocked by premedication with methylscopolamine. Each S was videotaped before 45 min. and 24 hr. after administration of physostigmine. The tape sequences were rated blind by two neurologists on a global assessment of severity. At 24 hr. all Ss showed a decrease in severity of mouth lip and tongue movements, and six had decreased hand finger movements. At 45 min. tongue movements decreased in all Ss. Other decrements were not significant. It is concluded that physostigmine reduced movements of TD in the elderly. (Journal abstract modified)

166386 Hrachovec, Josef P. Ethel Percy Andrus Gerontology Center, University of Southern California, Los Angeles, CA 90077 Inhibitory effect of gerovital H3 and procaine on monoamine oxidase in rat brain, liver, heart and platelets. **Gerontologist. 13(3, Part II):62, 1973.**

The inhibitory effect of Gerovital Hs (GH3) and procaine hydrochloride(P), compounds which have proven beneficial in various complaints and chronic diseases of old age, on monoamine oxidase in rat brain, liver, heart, and blood platelets was studied. Brain, liver, and heart of adult male rats were homogenized and monoamine oxidase activity was determined in the mitochondrial fraction separated by differential centrifugation. Blood platelets, used for monoamine oxidase activity determinations, were separated from the rat blood by differential centrifugation. By in vitro and in vivo experiments, it was observed that both GH3 and P inhibit the MAO activity in brain, liver, heart, and platelets, and that the inhibitory effect is more pronounced with GH3 than it is with P alone. (Journal abstract modified)

167262 Prange, Arthur J.; Jr. University of North Carolina School of Medicine, Chapel Hill, NC The use of drugs in depression: its theoretical and practical basis. **Psychiatric Annals. 3(2):56-65, 69, 72-75, 1973.**

The use of drugs in depression is examined. The most useful drugs are the tricyclics. Various means are available to accelerate their effects and to treat the patient who is refractory to usual regimens. Knowledge about drugs has contributed substantially to theories about effective disorders. It is concluded that theory should guide drug practice. 121 references.

12 PSYCHOTOMIMETIC EVALUATION STUDIES

152143 Green, Jack P.; Dressler, Kenneth P.; Khazan, Naim. Dept. of Pharmacology, Mt. Sinai School of Medicine of the City Univ. of New York, New York, NY 10029 Mescaline-like activity of 2-amino-7-hydroxytetralin. **Life Sciences (Oxford). 12(10):475-479, 1973.**

The electroencephalographic effects of 2-amino-7-hydroxytetralin were compared with those of mescaline and LSD in normal adult female Sprague-Dawley rats and in similar rats made tolerant to mescaline. 2-Amino-7-hydroxytetralin was found to have sleep effects in rats similar to those of mescaline and LSD, and it showed cross-tolerance with mescaline, as did D-LSD. These properties had been predicted by total valence electron calculations, indicating that quantum mechanics can be helpful in predicting the biological activity of chemical substances even when tested in the whole animal. 26 references. (Author abstract modified)

157345 Bell, David S. Psychiatric Research Unit, Callan Park Hospital, Rozelle, N.S.W. 2039, Australia The experimental reproduction of amphetamine psychosis. **Archives of General Psychiatry. 29(1):35-40, 1973.**

A large dose of intravenous methamphetamine hydrochloride reproduced the amphetamine psychosis in 12 of 14 patients dependent on amphetamine sulfate and failed to produce a psychosis in two patients who were eventually found to have not used amphetamine regularly above the therapeutic dose range. The psychosis was the facsimile of the disorder observed during drug abuse: a schizophrenic - like state of paranoia in a setting of clear consciousness accompanied by auditory or visual hallucinations, or both, but without thought disorder. Since in some cases the onset of the psychosis was sudden and occurred within one hour of commencing the intravenous injection, hypotheses about depletion of catecholamines and long term metabolites may need to be reconsidered. 44 references. (Author abstract)

162155 McCabe, O. Lee; Savage, Charles; Kurland, Albert; Unger, Sanford. Maryland Psychiatric Research Center, Baltimore, MD 21228 Psychedelic (LSD) therapy of neurotic disorders: short-term effects. **Journal of Psychedelic Drugs. 5(1):18-28, 1972.**

Using a psychoneurotic population, the short-term effects of one therapeutically designed low - dose LSD exposure, of a high - dose exposure, and a comparison of these to each other and a conventional treatment group are assessed. Using test behavior as the criterion, the present investigation suggests that psychedelic psychotherapy can affect personality change in subjects willing to undergo such a procedure. The rapidity with which this occurs, seems attributable to the pharmacologically - induced receptivity occasioned by the LSD administration, and must be considered promising in light of the time and environmental manipulation on which other methods of behavior modification rely. 41 references. (Author abstract modified)

162156 Fischer, Roland; Fox, Ronald; Ralstin, Mary. Department of Psychiatry, The College of Medicine, Ohio State University, Columbus, OH 43210 Creative performance and the hallucinogenic drug-induced creative experience. **Journal of Psychedelic Drugs. 5(1):29-36, 1972.**

The relationship between dream states and creativity is studied using an experimental study of the relation between brain damage and creativity. Brain damage, induced by psilocybin, was measured in a group of 21 college age volunteers by administering the Minnesota Percepto-Diagnostic Test to them. The high incidence of subjects with the greatest brain damage and lowest mean MacKinnon creativity score, producing the most aesthetically pleasing test records of their drug induced experiences, supports the contention that the hallucinogenic drug induced state is conducive to creativity. 31 references.

163189 Farnsworth, N. R.; Lai, A.; Tin-Wa, M.; Mika, E. S.; Persinos, G. J. Bergstrom Toxicology Laboratory, Viers Mills Rd., Rockville, MD Phytochemical investigation of Virola peruviana, a new hallucinogenic plant. **Journal of Pharmaceutical Sciences. 62(9):1561-1563, 1973**

A study is reported which resulted in the isolation of 5-methoxy-N,N-dimethyltryptamine as well as the identification of N,N-dimethyltryptamine and 5-methoxytryptamine, thus confirming the hallucinogenic aspect of V. peruviana. In addition, myoinositol and the lingnans lirioresinol-A dimethyl ether and lirioresinol-B dimethyl ether were isolated and identified. A mixture of n-alkanols was isolated and shown to consist of octaconsanol, triacontanol, and dotriacontanol, whereas a mixture of sterols was isolated and shown to consist of beta-sitosterol, campesterol, and stigmasterol. 17 references. (Author abstract modified)

163264 Jeanneau, A. 9, square Anatole-France, 78-Saint-Cyr-l'Ecole /Henri Michaux and psychopathological research./ Henri Michaux et la recherche psychopathologique. **Evolution Psychiatrique (Toulouse). 37(2):407-433, 1972.**

Experiments conducted by the poet Henri Michaux with hallucinatory drugs are reported with methods described and conclusions reported. The poet is quoted to illustrate the combination of scientific observation and poetic creativity. The quotes describe visions with mescaline, and include experiences in forms and rhythm, the infinite, an inhumanly fast tempo, independence of thought, Eros, the return to corporeal space, and a sense of being alone without solitude. The experiments are intended to reveal a new pathology through the use of drugs. 30 references. (Journal abstract modified)

165755 Albernaz, Pedro Luiz Mangabeira; Gananca, Mauricio Malavasi. Otorrinolaringologia da Escola Paulista de Medicina /The effect of sulpiride on the vertigo of Meniere's syndrome and on psychosomatic vestibular disorder./ Efeito do sulpiride sobre a vertigem da doenca de Meniere e da desordem vestibular psicossomatica. **Revista Brasileira de Medicina (Rio de Janeiro). 30(1):62-67, 1973.**

Forty six cases are examined of Meniere's syndrome and psychosomatic vestibular disorder treated with 300mg of sulpiride orally for 40 consecutive days. Statistical analysis of symptoms shows that this vertigo treatment is efficient for both disorders, with 5% risk of error. The following collateral reactions were of little importance and did not necessitate suspension of treatment: drowsiness, transitory tremors, and galactorrhea, with or without hypermenorrhea. Only one case, which is not included in the sample, experienced profuse vomiting, which ceased when treatment was interrupted. 7 references.

13 MECHANISM OF ACTION: PHYSIOLOGICAL, BIOCHEMICAL AND PHARMACOLOGICAL

150216 Mars, Harold. Div. of Medicine, Dept. of Neurology, Mt. Sinai Hospital of Cleveland, 1800 E. 105th St., Cleveland, OH 44106 Modification of levodopa effect by systemic decarboxylase inhibition. **Archives of Neurology. 28(2):91-95, 1973.**

The effect of a combination of levodopa and the peripheral carboxylase inhibitor, alpha-methyl dopa hydrazine (MK-486), was studied in 25 parkinsonian patients, previously receiving chronic levodopa therapy. They exhibited a 60% to 70% decrease in daily levodopa requirements, and a mean 51.7% enhancement of clinical response to the amino acid. Adverse side-effects of systemic origin were decreased. Cardiac arrhythmias were detected in six of 19 patients receiving levodopa alone. All showed improvement in cardiac rhythmicity. Blood dopa levels following oral administration of 250mg of levodopa were potentiated sevenfold by 50mg of MK-486. The blood dopa to dopamine ratio increased from 11.5to 62.2. 37 references. (Author abstract modified)

150218 Rinne, Urpo K.; Sonninen, Vesa. Dept. of Neurology, Univ. of Turku, 20520, Turku 52, Finland Brain catecholamines and their metabolites in parkinsonian patients: treatment with levodopa alone or combined with a decarboxylase inhibitor. **Archives of Neurology. 28(2):107-110, 1973.**

Analyses of autopsy samples of parkinsonian patients showed significantly decreased concentrations of dopamine and homovanillic acid (HVA) in the extrapyramidal brain regions. Twelve patients treated with levodopa alone or combined with a decarboxylase inhibitor showed concentrations of dopamine and HVA which ranged from values corresponding to nontreated parkinsonian patients to levels above those in controls. Increase in concentration of HVA was relatively more marked than that of dopamine. There were no significant changes in the concentration of noradrenaline. Histological examination of brain samples showed no changes related to the treatment. 29 references. (Author abstract)

150293 Turnbull, M. J.; Ballinger, B. R. Dept. of Pharmacology and Therapeutics, Univ. of Dundee, Dundee, England Urinary excretion of monoamines and metabolites in patients dependent on and withdrawn from barbiturates. **Psychopharmacologia (Berlin). 30(2):103-108, 1973.**

The effect of chronic barbiturate administration and its subsequent withdrawal on monoamine metabolism was studied. Urine collections were made from six barbiturate dependent males and females immediately prior to, during, and after drug withdrawal. The urine samples were analyzed for adrenaline, noradrenaline, dopamine, 3-methoxy-4-hydroxymandelic acid, 4-hydroxy-3-methoxyphenylacetic acid, and 5-hydroxyindole-3-acetic acid. Withdrawal did not produce any change in the pattern of excretion, and at no time did the excretion of any of these substances differ from normal values. 22 references. (Author abstract modified)

150314 Stokes, J. W.; Mendels, J.; Secunda, S. K.; Dyson, W. L. Dept. of Psychiatry, Univ. of Pennsylvania, Philadelphia, PA Lithium excretion and therapeutic response. **Journal of Nervous and Mental Disease. 154(1):43-48, 1972.**

The Lithium Excretion Test (LET) was administered to 52 patients as a screening test to predict whether or not an individual patient will benefit from lithium carbonate therapy. The test measures the amount of lithium excreted in the urine over 4 hours after a 1200mg loading dose of lithium is taken. The theory that lithium retainers are lithium responders and lithium excretors do not respond was tested. Results showed that lithium excretion during the LET did not predict subsequent response to lithium therapy. The LET was judged ineffective as a screening test since it would exclude many patients who would benefit from lithium therapy. The need for continued clinical trials given to a wide range of patients, and documentation that adequate therapeutic plasma concentrations of lithium have been sustained is stated. 16 references.

150323 Konzett, H.; Berner, W.; Lochs, H. Pharmakologisches Institut der Universitat Innsbruck, A-6020 Innsbruck, Austria, Peter Mayr-Strasse 1 Emotionally induced cardiovascular changes in man as a means for the investigation of tranquillizing drugs. **Psychopharmacologia (Berlin). 30(1):75-82, 1973.**

The cardiovascular changes (increase of forearm blood flow, of systolic and diastolic blood pressure and of heart rate) during a defined short-term emotional stress situation (Stroop interference test and mental arithmetic) were used as variables to determine the duration of action of two tranquilizers in a double-blind study on nine Ss. Neither 10mg of mesoridazine nor 20mg of thioridazine inhibited the stress induced cardiovascular changes 8 hours after oral intake. It is concluded that the duration of the action of the two tranquilizers in the used doses lasts more than 1 and less than 8 hours. 13 references. (Author abstract)

150349 Saletu, B.; Saletu, M.; Itil, T. M. Missouri Inst. of Psychiatry, Univ. of Missouri School of Medicine, 5400 Arsenal St., St. Louis, MO 63139 Effect of tricyclic antidepressants on the somatosensory evoked potential in man. **Psychopharmacologia (Berlin). 29(1):1-12, 1973.**

The effect of orally administered single doses of placebo, imipramine, and amitriptyline on the human somatosensory evoked potential (SEP) was investigated using three matched groups of 10 normal male Ss. In contrast to the placebo, the two antidepressants induced characteristic and systematic changes in the evoked response: both decreased the latency in the first three SEP peaks, but increased the latency in subsequent peaks. The amplitudes were attentuated, especially in the latter part of the response, with the

exception of peaks 3 and 4. The drug profiles seem characteristic for tricyclic antidepressants and differ appreciably from those of major tranquilizers, minor tranquilizers, and stimulants. The latency decrease was significantly greater after imipramine than after amitriptyline, but the latency increase was more marked after amitriptyline; the former produced more amplitude attenuation. This indicates that, of the two antidepressants, amitriptyline has more sedative properties, whereas imipramine has more stimulatory qualities. The SEP technique, in conjunction with quantitative and statistical evaluation methods, seems to be a promising tool for the classification of psychotropic agents. 33 references. (Author abstract)

150620 Vachon, Louis; FitzGerald, Muiris X.; Solliday, Norman H.; Gould, Ira A.; Gaensler, Edward A. 720 Harrison Ave., Suite 605, Boston, MA 02118 Single-dose effect of marihuana smoke: bronchial dynamics and respiratory-center sensitivity in normal subjects. **New England Journal of Medicine. 288(19):985-989, 1973.**

Normal volunteers with previous marihuana smoking experience inhaled the total smoke from 3.23mg/kg of marihuana, using a bag-in-box technique. Randomly, nine received marihuana containing a high (2.6%), and eight a low (1%) concentration of delta9-tetrahydrocannabinol. Physiologic variables were monitored before and for 20 min after smoking. In the high dose group the heart rate increased 28%. Concomitantly, airway resistance, measured in a body plethysmograph, fell 38%; the functional residual capacity remained unchanged (050 ml) throughout, and specific airway conductance increased 44%. Flow volume loops showed a 45% increase in flow rate at 25% of vital capacity. The low dose group showed no increase in heart rate but significant, if lesser changes, in airway dynamics. Carbon dioxide sensitivity, measured by rebreathing remained unchanged in both groups. Marihuana smoke, unlike cigarette smoke, causes bronchodilatation rather than bronchoconstriction and, unlike opiates, does not cause central respiratory depression. 21 references. (Author abstract)

150774 Hoyos, Jorge Meneses. La clinica del Aparato Cardiovascular, Escuela Medico Militar, Mexico, D. F. /Psychopharmaceutics: III. reserpine./ Los psicofarmacos: III. la reserpina. **Revista Medicina Mexicana (Mexico City). 52(1138):401-409, 1972.**

The biochemical effects of reserpine on voluntary and involuntary metabolic systems are examined according to cephalic functions, the central nervous system and the endocrine system. Specific drug induced behavioral patterns such as rigidity, apathy and drowsiness are discussed. The medical effects of reserpine on Parkinson and cataleptic subjects are described. Unusual electroencephalogram recordings observed after administration of the drug are contrasted to patterns produced by other substances. Dangerous side-effects include epileptic - like convulsions, temporary muscular paralysis, excessive salivation and extreme psychic depression occasionally leading to attempted suicide. 51 references.

150778 Karniol, Isac G.; Calini, E. A. Setor de Psicofarmacol, Universidad de Sao Paolo, San Paolo, Brazil /The possibility of predicting the effects of marihuana in man by means of pharmacological tests in laboratory animals. Preliminary results./ Possibilidades de previsao dos efeitos da maconha no homen, atraves de testes farmacologicos em animais de laboratorio. Resultados preliminares. **Revista da Associacao Medica Brasileira (San Paolo). 18(1):3-10, 1972.**

Fumes from two samples of 62.5to 500 mg of burning marihuana were collected in a spirometer and inhaled under standard laboratory conditions by a group of volunteers. Results of this study indicated that sufficient doses caused marked effects such as tachycardia, temporal discrimation alterations, euphoria, and hallucinations. Simultaneously, psychopharmacological tests demonstrated that the stronger sample of marihuana in human experiments also provoked intense reactions in laboratory animals. 33 references. (Author abstract modified)

150833 Domenichini, E.; Carbonera, D.; Pagnin, A.; Scherini, A. Dept. of Anaesthetics and Intensive Therapy, Univ. of Pavia and San Matteo Hospital, Pavia, Italy Sequential trial upon the awakening effect of amantadine after ketamine anaesthesia. **Current Therapeutic Research. 14(11):707-710, 1972.**

A sequential trial to evaluate the awakening effect of intravenous amantadine after ketamine anesthesia is discussed. Ketamine produces a dissociative anesthesia by selectively depressing the thalamoneocortical system. Pairs of male patients scheduled for minor surgery were selected. Ss were given either 300mg amantadine or placebo saline solution shortly after the end of operation.

A simple test consisting of speaking and writing their names or surnames and reading some standard words was employed to test the degree of consciousness. Amantadine was more effective as regards reading and writing ability; differences were highly significant. No difference was demonstrated for speaking ability. Both treatments were well tolerated. It is suggested that amantadine, owing to the improved dopaminergic conduction, effectively reactivates the corticothalamic pathways depressed by ketamine. 10 references. (Author abstract modified)

150836 Aguggini, G.; Meucci, M.; Reina, G. Institute of Physiology of Animal Nutrition, Univ. of Milan, Milan, Italy The excretion of L-Dopa metabolites at different hours of the day. **Current Therapeutic Research. 14(11):749-757, 1972.**

The behavior of L-dopa metabolite concentrations in urine was studied as a function of time, in order to investigate whether there is a time correlation between the disorders observed in patients suffering from parkinsonism and the concentration of metabolites themselves. The metabolites considered were divided into two classes: the principal ones were 4-hydroxy-3-methoxyphenylacetic, 2,5-dihydroxyphenylacetic and 3,4-dihydroxyphenylacetic; in the second group were o-hydroxyphenylacetic, m-hydroxyphenylacetic, p-hydroxyphenylacetic, phenylpyruvic, 4-hydroxy-3-methoxymandelic and p-hydroxyphenylpyruvic. Possible correlations between excretion and disorders are to be searched for in the retention by the organism of phenylpyruvic and 4-hydroxy-3-methoxyphenylacetic acids. The need for a thorough investigation to see whether there is another possibility of metabolic pathway of administered L-dopa and an eventual correlation with different substances is expressed. A study with particular attention to mathematical models in the metabolic models of excretion is proposed. 13 references. (Author abstract modified)

150953 Yaryura-Tobias, J. A. University of Argentina, Buenos Aires, Argentina Levodopa and mental illness. **In: Hawkins, D., Orthomolecular psychiatry: treatment of schizophrenia. San Francisco, W. H. Freeman, 1973. 697 p. (p. 263-278).**

Levodopa (3,4-L-dihydroxyphenylalanine), most of which is formed and metabolized outside of the central nervous system with the formation of active catecholamines that do not cross the blood-brain-barrier, appears to exert both neurological and psychiatric actions in the central nervous system. The neurological effect is usually manifested by improvement of clinical symptoms (rigidity) and sometimes by the occurrence of undesirable reactions (dyskinesias). The psychiatric effect is characterized by modification of mental status (psychosis) and sometimes by desirable effects (alertness). The antiparkinsonism properties of levodopa, for example, are often observed with a subsequent development of psychiatric manifestations. The apparent capacity of levodopa to possess a biphasic action in regard to effect, e.g.,elation and depression, would indicate an excitatory and inhibitory neuronal activity in explaining psychiatric changes. When given to schizophrenic patients, levodopa produces mental changes which imply that the drug may aggravate the illness. Clinical application of levodopa in humans may open a new road to further investigation of biochemical theories of schizophrenia based upon alterations in the metabolism of catecholamines. 143 references.

151154 Brown, Stanley S.; Goenechea, Sabino. Div. of Clinical Chemistry, Med. Research Coun. Clinical Research Ctr., Watford Rd., Harrow, Middlesex, HA1 3UJ, England Methaqualone: metabolic, kinetic, and clinical pharmacologic observations. **Clinical Pharmacology and Therapeutics. 14(3):314-324, 1973.**

The properties, disposition and metabolism, biological activity, clinical pharmacology, and toxicology of methaqualone are discussed. Methaqualone is a high melting lipophilic solid which is both a cyclic amide and a pyrimidine derivative. It lends itself to chromatographic analysis; and spectrophotometry, infrared spectrometry, and nuclear magnetic resonance can be used to analyze it for toxicological studies, forensic purposes or identification and quantitative determination during autopsy. In man, the drug is absorbed rapidly and is strongly protein bound. Its major route of metabolism involves relatively nonspecific hydroxylation of the tolyl substituent, with little unchanged drug being excreted. Although originally synthesized as an analgesic, methaqualone apparently has little such activity; rather, it functions as a hypnotic, anticonvulsant, antitussive, and CNS depressant. Several cases of methaqualone abuse have been reported, along with cases of acute overdosage. Mild overdosage presents a clinical picture indistinguishable from that of hypnotic overdosage; severe poisoning is accompanied by a high incidence of pyramidal

signs. The treatment of methaqualone poisoning is based on the principles of intensive supportive therapy. If treatment is commenced within a few hours of drug ingestion, the mortality risk is low. 144 references.

151155 Zsoter, Thomas T.; Johnson, Gordon E.; DeVeber, George A.; Paul, Hindy. Dept. of Medicine, Toronto Western Hosp., 399 Bathurst St., Toronto, Ontario, Canada Excretion and metabolism of reserpine in renal failure. **Clinical Pharmacology and Therapeutics. 14(3):325-330, 1973.**

The effect of renal failure on the excretion and metabolism of 3H-reserpine was studied in 15 male and female patients between the ages of 26 and 83 years. The plasma level and urinary and fecal excretion of the drug were followed for 7 days. There was a correlation between the urinary excretion of total radioactivity, plasma half life, and creatinine clearance, but no correlation between fecal excretion and degree of renal impairment was found. 8 references. (Author abstract)

151163 Krauer, Beatrice; Draffan, G. H.; Williams, Faith M.; Clare, R. A.; Dollery, C. T.; Hawkins, D. F. M.R.C. Research Group in Clin. Pharmacology, Royal Postgrad. Med. School, London, England Elimination kinetics of amobarbital in mothers and their newborn infants. **Clinical Pharmacology and Therapeutics. 14(3):442-447, 1973.**

The plasma concentrations of amobarbital were measured in mildly hypertensive mothers and their newborn infants following the administration of a single dose of sodium amobarbital to the mothers shortly before delivery. Similar drug concentrations were found in the cord and maternal plasma immediately after delivery. From the declining amobarbital concentration values, first order elimination kinetics were demonstrated in all cases. The plasma half-life of amobarbital was 2.5times as long in the newborn as in the mother. The plasma concentration of the drug's major metabolite, hydroxyamobarbital, increased during the first 12 to 24 hours postdelivery in two of the eight mothers and children and decreased thereafter. 21 references. (Author abstract)

151626 Van Zwieten, P. A. Dept. of Biopharmacy, Univ. of Amsterdam, Roetersstraat 1, The Netherlands The central action of antihypertensive drugs, mediated via central alpha-receptors. **Journal of Pharmacy and Pharmacology (London). 25(2):89-95, 1973.**

The central action of some well known antihypertensive agents is described and explained by a mechanism of action which requires the excitation of alpha-adrenoceptors located in the CNS and connected to an inhibitory neuron, possibly the bulbospinal sympathetic neuron. Excitation of these receptors brings about an enhanced inhibitory activity and, thus, a depression of peripheral sympathetic action, resulting in a fall in blood pressure. Among the drugs which achieve their effects via this mechanism are alpha-methyldopa, reserpine, and clonidine. Concomitantly, some common central mechanism of action seems to be involved for these three drugs; speculations indicate that the anatomical localization of the alpha-adrenoreceptors in the CNS may be the area of the nucleus tractus solitarii. It is possible that the development of spontaneous hypertension might be explained via the diminishing of alpha-adrenoceptor stimulation. 45 references.

151633 Beckett, A. H.; Essien, E. E. Dept. of Pharmacy, Chelsea College, Univ. of London, Manresa Rd., London, S.W.3, U.K. Chlorpromazine 'hydroxylamines' in red blood cells as major metabolites of chlorpromazine in man. **Journal of Pharmacy and Pharmacology (London). 25(2):188-189, 1973.**

The findings of chlorpromazine hydroxylamines within human red blood cells as major metabolites of chlorpromazine is discussed. Six to 10 hours following the administration of 32mg of chlorpromazine to a human patient, about 0.5% of the dose is found in the red blood cells as a mixture of the hydroxylamines (Ib) and (IIb); after 13 days, there is little change in the concentration of these compounds. In patients being treated with 300 to 600mg of chlorpromazine daily, 20 to 40mg of (Ib) and (IIb) are found in the red blood cells. In both cases, negligible amounts of unchanged drug and 5 to 6% norchlorpromazine (Ic) are also found. Examination of (Ib) and (IIb) by thin layer chromatography, gas liquid chromatography, mass spectrometry, and for chemical reactions yielded results identical to those obtained using synthetic material produced by the careful oxidation of (Ic) by hydrogen peroxide or m-chlorperbenzoic acid. It is suggested that hydroxylamine formation may be the route to pigment formation from chlorpromazine in man. 6 references.

151683 Carlsson, Arvid. Dept. of Pharm., Univ. of Goteborg, Goteborg, Sweden Biochemical and pharmacological aspects of parkinsonism. **Acta Neurologica Scandinavica (Supplement) (Kobenhavn). 48(51):11-42, 1972.**

A discussion of biochemical and pharmacological aspects of parkinsonism reviews the mechanism underlying parkinson's disease and the mode of action of L-dopa. Whether drug induced or spontaneous, parkinsonism is probably due to an insufficient activation of striatal dopamine (DA) receptors. Experiments are reviewed which indicate that DA is involved in extrapyramidal functions, and large amounts are present in the corpus striatum. Extrapyramidal actions of reserpine deplete DA from the corpus striatum. The depletion and decreased to formation of noradrenaline, 5-hydroxytryptamine (5-HT), as well as DA, is probably due the degeneration of nigro-neostriatal dopamine carrying neurons and certain closely related neuronal systems. Following administration of L-dopa, there is an increase in the concentration of DA in the brain and other tissues. Pretreatment with a dopa decarboxylase inhibitor with predominantly peripheral effects results in potentiation of the central L-dopa response. The parkinsonian brain factors which may influence the sensitivity to L-dopa include the loss of dopa decarboxylase as a consequence of neuronal degeneration, denervation supersensitivity, activities of various catecholamine inactivating mechanisms, and extracerebral factors. Tremor responds less promtly to L-dopa than akinesia and rigidity because of the deficiency of DA at receptor sites in the brain and possibly because of a deficiency of 5-HT at central receptor sites. Possible ways of modifying the therapeutic response to L-dopa include: L-dopa potentiating agents, L-dopa analogues, direct DA receptor stimulating agents, receptor blocking agents, dopamine-beta-hydroxylase inhibitors, monoamine oxidase inhibitors, catechol-O-methyl transferase inhibitors, amphetamines, membrane pump blocking agents, anticholinergic agents, and amantadine. 96 references.

151693 Kytomaki, O.; Nousiainen, R.; Pekkarinen, A.; Rinne, U. K.; Siirtola, T.; Sonninen, V.; Viljanen, M. Dept. of Neurology and Pharmacology, University of Turku, Turku, Finland Effect of L-dopa on plasma growth hormone and insulin. **Acta Neurologica Scandinavica (Supplement) (Kobenhavn). 48(51):125-126, 1972.**

The effects of intravenously injected L-dopa (1.5mg/kg) and of oral L-dopa (500mg) on the concentration of plasma growth hormone, insulin, and blood sugar were investigated in 54 patients, 31 with parkinsonism. The remaining 23 suffered from other neurological diseases. A corresponding study was made by giving seven patients a dose of 100mg of amantadine. Intravenous L-dopa caused an increase in the concentration of plasma growth hormone, which was highest 45 minutes after injection. Oral L-dopa caused an insignificant rise in plasma growth hormone. The mean rise after L-dopa injection was not lower among parkinsonian patients than among others, although 5 of 7 patients who did not show any remarkable change in plasma growth hormone were parkinsonians. The range was clearly higher in the parkinsonian group. Neither intravenous injection of L-dopa nor oral dose nor orally administered amantadine caused significant changes in plasma insulin or blood sugar concentrations. The results suggest that L-dopa stimulates the secretion of growth hormone. Because oral L-dopa did not produce any significant effect, the possibility of side-effects seems slight. The possible usefulness of L-dopa in the testing of the pituitary growth hormone secretion capacity is an area of further investigation.

151803 Lando, L. I. no address /Comparative data from a study of the metabolism of biogenic amines of epileptic patients in a psychotic state./ Sravnitel'nye dannye izucheniya obmena biogennykh aminov u bol'nykh epilepsiyey v zavisimosti ot psikhoticheskogo sostoyaniya. **In: Portnov, A., Epilepsiya (klinika, patogenez, lecheniye). Moscow, Institut psikhiatrii MZ RSFSR, 1972. 543 p. (p. 319-323). 2 rub.**

The data obtained from a dynamic investigation of 54 male patients with a diagnosis of symptomatic epilepsy and 43 with a picture of epileptic disease were analyzed in order to determine the neurohormonal metabolic mechanisms in these patients. Comparison of the data on patients with epilepsy and data on the control group indicated a confirmed increase in epinephrine and dopamine excretion in symptomatic epileptic patients in acute psychotic states who were receiving combined anticonvulsant and neuroleptic therapy. On anticonvulsant treatment, feeble-minded patients manifested a verified decrease in epinephrine, norepinephrine, and deoxyphenylalanine. A similar verified decrease in serotonin content was found in patients with epileptic disease on com-

bined treatment and patients with symptomatic epilepsy with delayed course of psychosis. It was hypothesized that disturbances in the regulatory and coordinating role of the hypothalamus, especially of its ergotropic system, were responsible to a significant measure for the observed changes in catecholamine excretion.

152122 Kupfer, David J.; Bowers, Malcolm B., Jr. Dept. of Psychiatry, Yale Univ., New Haven, CT 06508 REM sleep and central monoamine oxidase inhibition. **Psychopharmacologia (Berlin). 27(3):183-190, 1972.**

The relationship between sleep and lumbar cerebrospinal fluid (CSF) acid monoamine metabolite levels was studied in nine psychiatric patients following the administration of clinical doses of phenelzine, and in five patients after phenelzine had been withdrawn for 1 week. The results indicated a greater decrease in lumbar CSF homovanillic acid (HVA) levels as compared with 5-hydroxyindoleacetic acid (5HIAA) levels following clinical doses of phenelzine in the presence of virtually total REM suppression. These results indicate that dopamine and other catecholamines play an inhibitory role in REM sleep mechanisms. The results of the drug withdrawal study indicated that the four patients with REM rebound showed increases in HVA levels as compared with those found during drug treatment, while the single patient with no REM rebound showed no increase in HVA levels. 19 references. (Author abstract modified)

152131 Bennett, Donald R.; Madsen, Jack A.; Jordan, William S.; Wiser, Wilmer C. Dept. of Neurology, Univ. of Utah Medical Ctr., 50 North Medical Dr., Salt Lake City, UT 84112 Ketamine anesthesia in brain-damaged epileptics. **Neurology. 23(5):449-460, 1973.**

The safety of ketamine anesthesia in epileptics needing dental work was assessed both clinically and electroencephalographically. Distinctive electroencephalographic features, different from the changes produced by conventional anesthetic agents, were found in six of eight brain-damaged epileptics during ketamine anesthesia. Focal seizures occurred in two patients during anesthesia, while a third subject had a major motor convulsion in the recovery period. The three patients showed an increase in seizures during the 3-month posttest period. These data support the results from animal investigations which indicated that ketamine is a cerebral stimulant. It is stated that this agent be used with caution in epileptics. 22 references. (Author abstract modified)

152201 Cone, Edward J. Addiction Research Center, NIMH, P.O. Box 2000, Lexington, KY 40507 Human metabolite of naltrexone (N-cyclopropylmethylnoroxymorphone) with a novel C-6 isomorphine configuration. (Unpublished paper) Addiction Research Center, NIMH, 1973. 4 p.

A novel C-6 isomorphine configuration was found in a human metabolite of naltrexone (N-cyclopropylmethylnoroxymorphone) in healthy, adult, male volunteers, all prisoners in federal prison and former narcotic addicts. Urine from two subjects receiving 50mg/day of naltrexone orally for approximately 6 weeks was collected ad lib and every eight hours for 2 days. Three subjects received a single oral dose of 50mg naltrexone and urine was also collected. Urine samples from the chronic subjects which were richest in metabolite were extracted with chloroform. Sodium borohydride reduction of one in methanolic dioxane resulted in a quantitative yield of three confirming the C-6 morphine configuration of three. The conversion of the metabolite of one established the link between the C-6 epimers and confirmed the structural assignment of the metabolite as four. The metabolite also was found in the urine of the single dose subjects. 14 references.

152439 York, D. H. Department of Physiology, Queen's University, Kingston, Ontario, Canada Dopamine receptor blockade -- a central action of chlorpromazine on striatal neurons. **Brain Research (Amsterdam). 37(1):91-99, 1972.**

The central action of chlorpromazine on striatal neurons was studied in squirrel monkeys. The actions of iontophoretically applied dopamine on neuronal discharge frequency of cells in the putamen were antagonized by chlorpromazine. Both excitant actions of dopamine, elicited either directly or as a secondary response to an initial depression, as well as depressant responses of dopamine were susceptible to blockade by this antagonist. It is well known that chlorpromazine causes a high incidence of drug induced Parkinsonism in man. The results suggest that since chlorpromazine has a direct action in blocking dopamine receptors, in addition to its local anaesthetic action on nerve cells in the putamen, this blockade may represent a fundamental mechanism of drug induced Parkinsonism as well

as explaining the specific antagonism of amphetamine stereotype behavior by neuroleptics. 33 references. (Author abstract modified)

152722 Marrazzi, Amedeo S. University of Missouri Institute of Psychiatry, St. Louis, MO Exploring with drugs: the pharmacologist in psychiatry. **Biological Psychiatry. 6(2):171-175, 1973.**

The role of the pharmacologist in the prevention and treatment of psychiatric disorders is discussed. The pharmacologist must consider: 1) general biological principles that characterize the unit of structure and of function, viz.,the cell; and 2) the essence of an intercellular communication and integrative action or command system, viz.,the nervous system. The chemical nature of the synaptic neurohumoral environment makes it susceptible to modification by other chemicals or drugs and accounts for the vulnerability of synapses to chemical and pharmacological influences. Evidence is presented indicating that synapses and their drug sensitive mechanisms are qualitatively alike throughout the brain, so that the differing patterns are a function of the varying thresholds of the responding postsynaptic cells. It is suggested that the ordering of ideas, or classification, is the first step in clarifying relations and interactions. In so doing, one deals with units and individuals, with populations and societies. It is concluded that such studies can be conducted arm in arm by the pharmacologist and the psychiatrist with mutual benefit. 15 references.

153100 Cappell, Howard; Kuchar, Eva; Webster, C. D. Research Division, Addiction Research Institute, 33 Russell St., Toronto, Ontario, Canada Some correlates of marihuana self-administration in man: a study of titration of intake as a function of drug potency. **Psychopharmacologia (Berlin). 29(3):177-184, 1973.**

The insensitivity of experienced marihuana users to pharmacological factors was studied in an ad lib self-administration situation. Subjects tested repeatedly with varying drug potencies were asked to smoke sufficient amounts to achieve a predefined subjective state of intoxication. Several indices of amount consumed suggested that effective titration of intake did not occur. Rather, Ss consumed more total THC the greater the potency of the material. Doses which produced a subjectively optimal high had significant behavioral and physiological effects. The results are consistent with the hypothesis that psychosocial variables may be more significant than pharmacological variables in determining the recreational intake of marihuana. 11 references. (Author abstract)

153101 Shagass, Charles; Straumanis, John J., Jr.; Overton, Donald A. Eastern Pennsylvania Psychiatric Institute, Henry Ave. and Abbottsford Rd., Philadelphia, PA 19129 Effects of lithium and amitriptyline therapy on somatosensory evoked response 'excitability' measurements. **Psychopharmacologia (Berlin). 29(3):185-196, 1973.**

Somatosensory responses obtained with a variety of stimulating conditions were measured in 14 psychiatric patients before and during lithium carbonate therapy and in 12 psychiatric patients treated with amitriptyline. Lithium increased evoked response amplitude, particularly in the early portion and augmented the dynamic range of test responses following conditioning stimuli of different intensity; excitatory effects were enhanced more than inhibitory. Amitriptyline reduced response amplitude in both early and later portions but did not affect dynamic range. The effects of amitriptyline were dominant over those of lithium in three patients treated with a combination of both drugs. 17 references. (Author abstract)

153106 Hollister, Leo E.; Tinklenberg, Jared R. Veterans Administration Hospital, 3801 Miranda Ave., Palo Alto, CA 94304 Subchronic oral doses of marihuana extract. **Psychopharmacologia (Berlin). 29(3):247-252, 1973.**

The development of sensitization or tolerance during subchronic oral dosage of marihuana extract was studied in casual marihuana users. Subchronic oral doses revealed no evidence of sensitization to the effects of two test doses of drugs as compared to interval treatment with placebo. Slight evidence of tolerance to dizziness and tachycardia from the drug were noted but not necessarily as a function of intervening drug exposure. 13 references. (Author abstract)

154336 Parwatikar, S.; Gomez, H.; Knowles, R. R. Department of Psychiatry, Missouri Institute of Psychiatry, University of Missouri School of Medicine, Columbia, MO 65201 Pentazocine dependency. **International Journal of the Addictions. 8(1):87-98, 1973.**

Four cases of pentazocine dependence are presented with reference to previous clinical and

experimental data as to its addiction or dependence liability. The American Medical Association Council on drugs has concluded that stricter control of the drugs is not warranted because the case reports of its dependency show that it occurs only in dependence prone individuals. Three of the cases did not have any history of previous drug use. It is suggested that a warning that the drug may be habit forming should be issued with each prescription. 20 references. (Author abstract)

155254 Prange, A. J., Jr.; William, I. C.; Lara, P. P. University of North Carolina School of Medicine, Department of Psychiatry, Chapel Hill, NC Pituitary and antidepressant responses of women to TRH. **Psychopharmacology Bulletin. 9(3):28-29, 1973.**

Antidepressant effects of TRH (thyrotropin releasing hormone) on eight depressed women are discussed. Evidence indicates that the antidepressant effect of TRH is not thyroid mediated. It is concluded that TRH has a direct central effect, producing prompt, brief relief.

155255 Shopsin, B.; Shenkman, L.; Blum., M.; Hollander, C. Neuropsychopharmacology Research Unit, Department of Psychiatry, New York University School of Medicine, New York, NY T3 and TSH response to TRH: newer aspects of lithium-induced thyroid disturbance in man. **Psychopharmacology Bulletin. 9(3):29, 1973.**

Triidothyronine (T3) and thyroid stimulating hormone (TSH) response to thyrotropin releasing hormone (TRH) given to hospitalized psychiatric patients is discussed. Data indicate: 1) whatever the insult produced by lithium, this agent can acutely reduce the amount of circulating thyroid hormone in some patients; 2) thyropituitary response in such patients leads to enhanced levels of endogenous TSH; 3) antithyroid effects of lithium are not due to any inhibitory effect of TRH on the pituitary; and 4) when they do occur, these effects appear transient. 4 references. (Author abstract modified)

155436 Ogunremi, O. O.; Adamson, Liisi; Brezinova, Vlasta; Hunter, W. M.; MacLean, A. W.; Oswald, I.; Percy-Robb, I. W. Dept. of Psychiatry, Univ. of Ife, Ile-Ife, Western State, Nigeria Two anti-anxiety drugs: a psychoneuroendocrine study. **British Medical Journal (London). 2(5860):202-205, 1973.**

The effects of chronic use of sodium amylobarbitone (SAB) and of benzoctamine (BA) on the human pharmacology of volunteers is reported. Eight males were studied for 27 weeks during which they received clinical doses of SAB and BA. Substitution of placebo for either drug caused raised anxiety and impairment of mental concentration. The drugs reduced sleep restlessness and paradoxical sleep. Blood samples taken half hourly during sleep showed: 1) plasma growth hormone concentration was little affected during administration but rose temporarily after withdrawal; and 2) there was a reduction of plasma corticosteroid concentration during sleep throughout administration of drugs and a rebound above normal during first withdrawal week. 15 references. (Author abstract modified)

155526 Tan, B. K. Delta-Ziekenhuis (Rotterdam Mental Hospital), Poortugaal, The Netherlands Autonomic correlates of the sedation threshold. **Canadian Psychiatric Association Journal (Ottawa). 18(3):239-245, 1973.**

The relationship between sedation threshold and autonomic measures was investigated in depressive patients and in those suffering from chronic schizophrenia. Results show no evidence of such a relationship and no significant difference in autonomic activity was found between the two groups. In particular, the three autonomic measures used failed to differentiate between the conditions of rest and sedation, and it was concluded that the sedative influence of sodium amytal is not exerted through a direct action on the autonomic centers. It was suggested that the experimental design would be suitable for comparing the action of sedative and anxiolytic drugs. 7 references. (Author abstract modified)

155905 Smith, J. A.; Hartley, R. School of Pharmacy, Univ. of Bradford, Bradford BD1 1DP, Yorkshire, England Abnormal O-methylated dopamine metabolites: the endogenous toxins of schizophrenia or parkinsonism? **Journal of Pharmacy and Pharmacology (London). 25(5):415-416, 1973.**

The role of O-methylated derivatives of dopamine in schizophrenia and parkinsonism is examined. The possibility that such abnormal metabolites are involved in both diseases is considered. It is plausible that 3-hydroxy-4-methoxyphen-ethylamine and 3, 4-dimethoxyphenethylamine (DMPEA) may play a dual role for the following reasons: both metabolites

produce akinesia in animals and may conceivably thus produce the similar syndrome observed in parkinsonism; and both DMPEA and the more potent N-acetyl derivative of DMPEA effect behavioral changes in animals although neither appear to have the hallucinogenic activity of mescaline. The dual role theory would explain why the hallucinogenic and akinetic activities are not seen in both diseases simultaneously. 19 references.

155908 Caldwell, John; Hawksworth, Gabrielle M. Dept. of Biochemistry, St. Mary's Hospital Medical School, London, W2 1PG, England The demethylation of methamphetamine by intestinal microflora. **Journal of Pharmacy and Pharmacology (London). 25(5):422-424, 1973.**

The ability of intestinal microflora and individual strains of bacteria to biotransform methamphetamine was examined in the guinea pig to assess the significance of this site of metabolism. Data show that the intestinal contents of guinea pigs possess the ability to biotransform methamphetamine by N-demethylation and probably one other pathway. Comparisons between the gut flora for the guinea pig and man are made and it is felt that methamphetamine metabolism by the gut flora of man is of importance. 16 references.

156642 Spector, Martin. Dept. of Otolaryngology, Univ. of Pennsylvania Med. School, Philadelphia, PA Acute vestibular effects of marijuana. **Journal of Clinical Pharmacology. 13(5-6):214-217, 1973.**

Possible adverse effects of marihuana on the human vestibular apparatus were investigated in male and female marihuana users between the ages of 21 and 40 years. Thirty six of the Ss were heavy users, and the remaining 36 were occasional users. The study was carried out in a double-blind fashion, with the Ss being administered placebo cigarettes, low dose marihuana cigarettes (7.5mg tetrahydrocannabinol), or high dose marihuana cigarettes (15mg tetrahydrocannabinol). Electronystagmography was utilized to record gaze nystagmus, pendulum tracking, spontaneous nystagmus, positional nystagmus, and rotation of the torsion swing. The results indicated no vestibular effect of marihuana. 4 references. (Author abstract modified)

156647 Gaut, Z. N. Dept. of Biochemical Nutrition, Hoffmann-La Roche, Inc., Nutley, NJ Binding of cyproheptadine-(N-methyl-14C) by human blood platelets: inhibition by phenothiazines and tricyclic antidepressants. **Journal of Pharmacology and Experimental Therapeutics. 185(1):171-176, 1973.**

The uptake of 14C-cyproheptadine by human blood platelets and the influence thereon of various chemically related drugs was investigated. The platelets were incubated in Ca++ and Mg++ free Krebs-Ringer bicarbonate buffer. When incubated for 2 minutes with 14C-cyproheptadine, the platelets accumulated radioactivity with gradients of 65 to 290 respectively. At all concentrations of the drug, no additional uptake occurred upon increasing incubation time up to 60 minutes. Under all circumstances, upwards of 98% of the platelet associated radioactivity migrated with authentic cyproheptadine on thin layers of silicic acid. After 10 minutes of incubation, chlorpromazine, phenothiazine, promethazine, amitriptyline, desipramine, imipramine, nortriptyline, and protriptyline all produced a 50% suppression of the radioactivity gradient. Several other basic compounds, including histamine and serotonin, and metabolic inhibitors were not inhibitory. There were indications that the accumulation was mainly due to the binding of cyproheptadine to the platelet membrane rather than active transport. Binding of the drug to platelets incubated in plasma suggests that this phenomenon may also occur in vivo. 14C-cyproheptadine is not metabolized by the platelet. 20 references. (Author abstract modified)

156771 Carlson, Harold E.; Temple, Robert; Robbins, Jacob. Clinical Endocrinology Br., Natl. Inst. of Arthritis, Metabolism and Digestive Diseases, Bethesda, MD 20014 Effect of lithium on thyroxine disappearance in man. **Journal of Clinical Endocrinology and Metabolism. 36(6):1251-1254, 1973.**

The effect of lithium on the disappearance of thyroxine from human serum was studied. Thyroxine disappearance was measured in five hyperthyroid and four euthyroid patients following the i.v. injection of radioactively labeled thyroxine. The administration of lithium carbonate produced a slowing of thyroxine disappearance in all hyperthyroid patients, but had no effect on the euthyroid patients. 10 references. (Author abstract modified)

156772 Noel, Gordon L.; Suh, Han K.; Frantz, Andrew G. Dept. of Endocrinology and Metabol-

ism, Walter Reed Army Institute of Research, Washington, DC 20012 L-dopa suppression of TRH-stimulated prolactin release in man. **Journal of Clinical Endocrinology and Metabolism. 36(6):1255-1258, 1973.**

The effects of L-dopa on the thyrotropin releasing hormone (TRH) stimulated release of prolactin were studied in normal young men and women. In both men and women, L-dopa pretreatment significantly suppressed the rise in prolactin which followed the i.v. administration of TRH. Although this phenomenon is compatible with more than one site of action for both dopamine and TRH within the hypothalamic - pituitary system, it is suggested that one action of dopamine in humans may be to inhibit the secretion of prolactin directly at the level of the anterior pituitary. 21 references. (Author abstract modified)

156817 Kesteloot, H.; Sluyts, R.; Floor-Wieringa, Alies; Van Strik, R. Div. of Cardiology, St. Raphael Univ. Clinic, Leuven, Belgium Pharmacological studies with tiprenolol and propranolol in man. **European Journal of Pharmacology (Amsterdam). 21(3):257-263, 1973.**

The effects of d,l-tiprenolol and d,l-propranolol on cardiac output and stroke volume, heart rate during exercise, and isoproterenol induced changes in heart rate, systolic blood pressure, and diastolic blood pressure were studied in 18 19-24-year-old human subjects. Tiprenolol was shown to be about 4.5times more active than propranolol in inhibiting the effect of isoproterenol on heart rate. The activity ratio of tiprenolol and propranolol on the isoproterenol induced blood pressure effects was lower than that for isoproterenol stimulated heart rate. No difference was found between the reduction of exercise tachycardia at various time intervals after 100mg of tiprenolol and 100mg of propranolol given orally. The maximum effect obtained was a reduction in heart rate of 18%, 2 hours after administration. The reproducibility of the exercise tests was confirmed, although a small diurnal variation in physical working capacity may exist. Following the i.v. injection of 2mg of tiprenolol, cardiac output decreased to a similar extent as heart rate, leaving the stroke volume unchanged. 18 references. (Author abstract modified)

157344 Prange, Arthur J., Jr.; Wilson, Ian C.; Lara, Patricio P.; Wilber, John F.; Breese, George B.; Alltop, Lacoe B.; Lipton, Morris A. University of North Carolina, Chapel Hill, NC 27514 THR (lopremone): psychobiological responses of normal women. II. Pituitary-thyroid responses. **Archives of General Psychiatry. 29(1):28-32, 1973.**

Ten normal women were injected intravenously with lopremone (thyrotropin releasing hormone) and saline given one to four weeks apart to determine pituitary and thyroid gland responses. Lopremone injection caused a sharp rise in thyrotropin (thyroid stimulating hormone, TSH) levels with a return to near base line levels in three hours. These TSH responses were slightly greater than those previously elicited in depressed women but the difference was statistically insignificant. After lopremone injection, triiodothyronine levels rose more and sooner than thyroxine levels. Neither TSH elevation nor thyroid hormone elevation correlated with the euphoric response experienced by most subjects; this and other evidence suggests a central action by lopremone. 25 references. (Author abstract)

158012 Young, G. C.; Morgan, R. T. T. Health Department, London Borough of Barnet, Winston House, Dollis Park, Finchley, N.3., England Rapidity of response to the treatment of enuresis. **Developmental Medicine and Child Neurology (Tadworth, Surrey, England) 15(4):488-496, 1973.**

Contrasted groups of slow and rapidly responding patients at a special investigation clinic for the treatment of childhood enuresis were compared in relation to a wide variety of background and treatment variables. The slow response group was characterized by significantly higher levels of anxiety amongst the mothers and a significantly higher incidence of familial disruption. Slow responders had more frequently received drugs in the course of their treatment. Slow responders were also significantly more likely to have a history of failure to awaken to the auditory stimulus of an enuresis alarm during treatment. The implications for future research are outlined. 33 references. (Author abstract)

158013 de Jonge, G. A. Department of Paediatrics, St. Joseph Ziekenhuis, Eindhoven, The Netherlands Human chorionic gonadotrophin ('pregnyl') in the treatment of nocturnal enuresis. **Developmental Medicine and Child Neurology (Tadworth, Surrey, England) 15(4):497-499, 1973.**

To test the validity of using human chorionic gonadotrophin (HCG) in the treatment of nocturnal enuresis, 19 children, who previously had not responded to therapy by the alarm clock method

or imipramine, were injected intramuscularly with HCG over a 5 week period. Although there were no appreciable side-effects, a striking finding was the weight gain in 18 children, greater in those on the larger HCG dose. Results of the study suggest that HCG cannot be recommended for treatment of nocturnal enuresis. 14 references. (Author abstract)

158154 Cramer, Hinrich; Ng, Larry K. Y.,; Chase, Thomas N. Department of Neurology, University of Freiburg, Freiburg, Germany Adenosine 3',5'-monophosphate in cerebrospinal fluid. **Archives of Neurology. 29(3):197-199, 1973.**

The role of cyclic adenosine 3,5-monophosphate (cyclic AMP) in the central nervous system of man was evaluated by measuring cyclic AMP levels in the cerebrospinal fluid (CSF) of patients manifesting various neurologic disorders in which alterations in monamine containing neuronal systems are suspected. Cyclic AMP levels measured in 41 patients appeared unrelated to age, sex, or time of day that samples were obtained. Levels in patients with Parkinson's disease did not differ significantly from those in patients with familial or acquired dyskinesias, spinocerebellar disorders, or from those in patients free of CNS disease. Neither acute nor chronic administration of levodopa altered cyclic AMP concentrations, while probenecid caused a substantial rise in levels of this nucleotide. Results suggest that cyclic AMP efflux from the spinal fluid compartment may be mediated by a probenecid sensitive transport system. 20 references. (Journal abstract modified)

158291 Rossi, Gian Franco; Di Rocco, Concezio; Maira, Giulio; Meglio, Mario. Istituto di Neurochirurgia, Universita Cattolica del Sacro Cuore, Via Pineta Sacchetti 526, 00168 Rome, Italy Experimental and clinical studies of the anticonvulsant properties of a benzodiazepine derivative, clonazepam (RO 5-4023). **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 461-488).**

The anticonvulsant power of the benzodiazepine derivative RO 5-4023 (clonazepam 0CP0) was studied in animals and in man. Acute (i.v.)administration of the drug was used in animals; acute as well as protracted (oral) treatments were employed in man. Results obtained following acute injection of CP both in animal and in epileptic patients indicate: good antiepileptic action on primarily or secondarily generalized epileptic activity; good effect on propagation of focal epileptic discharges to distant cerebral regions and a poor effect on propogation to cerebral structures directly connected to the epileptogenic zone; and no or poor effect on focal epileptic activity. Results obtained with protracted treatment on epileptic patients appear controversial. A decrease in the potency of the drug's antiepileptic action with the passage of time has been noticed. 15 references. (Author abstract modified)

158302 Robinson, Donald S.; Amidon, Ellsworth L. Dept. of Pharmacology, Given Medical Bldg., Univ. of Vermont College of Medicine, Burlington, VT 05401 Interaction of benzodiazepines with warfarin in man. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 641-646).**

The effects of flurazepam (FP) administration on plasma warfarin levels and anticoagulant control in man were studied in normal Ss and in patients receiving warfarin chronically. No significant changes in steady state plasma levels or half-lives of warfarin were observed during FP treatment. Although the hypoprothrombinemic response to a single dose of warfarin was less after 28 day pretreatment of the normal Ss with FP, no significant effects on prothrombin times were noted in the patients receiving warfarin chronically. It is concluded that FP and warfarin may be used concurrently in patients without risk of unacceptable fluctuations in prothrombin time or warfarin requirements. 12 references. (Author abstract)

158330 Ebara, Takashi; Watanabe, Shosuke; Nakaya, Koji; Taguchi, Kanzo; Nakashima, Yoshihiko; Otsuki, Saburo. Higashi Mental Hospital, Okayama, Japan Influence of lithium carbonate on the electroencephalogram. **Clinical Electroencephalography (Osaka). 15(3):169-173, 1973.**

Influence of lithium carbonate (LC) as recorded by EEG is studied in 11 mental patients (five manic-depressive patients, one in a manic state, one in a state of depression, one with atypical psychosis, one with sequelae of brain injury, and one with arteriosclerosis). Changes in EEG after LC treatment included sporadic slow wave and diffuse irregular slow wave bursts, appearance of theta waves, decrease in frequency and voltage of alpha waves. 33 references.

160465 Schwartz, Morton A. Dept. of Biochemistry and Drug Metabolism, Hoffman-La Roche Inc., Nutley, NJ 07110 Pathways of metabolism of the benzodiazepines. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 53-74).**

The pathways by which 1,4-benzodiazepines are metabolized in animals and man are described. The metabolism of chlordiazepoxide, medazepam and flurazepam illustrate the pathways by which this class of drugs are biotransformed. A striking characteristic of the three drugs is their biotransformation to pharmacologically active metabolites. The general reactions in man, dog and rat include the N-dealkylation of vulnerable groups at the N1 position and on side chain nitrogens, the conversion of the nonlactam drugs, chlordiazepoxide and medazepam to lactam (benzodiazepin-2-one) metabolites and the oxidation of benzodiazepin-2-ones to 3-hydroxy metabolites. The formation of phenolic metabolites is an important pathway in the rat. Some metabolites are eliminated from the system more slowly than the parent drug and may contribute significantly to the therapeutic effect of the drug. 39 references. (Author abstract modified)

160467 Rieder, Jurg; Wendt, Gernot. Dept. of Experimental Medicine, F. Hoffmann-La Roche & Co., Ltd., CH-4002 Basel, Switzerland Pharmacokinetics and metabolism of the hypnotic nitrazepam. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 99-127).**

A complete picture of the metabolism and the pharmacokinetics of nitrazepam in man is presented. Preparations of the drug labeled in position 2 or 5 with 14C were used. The main lines of biotransformation in man and in the rat have been clarified. Data concern: the absorption quota of unchanged nitrazepam in humans; the invasion constant k1; peak plasma levels of unchanged nitrazepam; the distribution of drug following intravenous injection; passage into cerebrospinal fluid; passage thru placental barrier in either direction; passage into mother's milk; plasma levels of unchanged nitrazepam and metabolites, II and III; and the elimination rate of unaltered nitrazepam in man. 7 references.

160469 Vessman, Jorgen; Alexanderson, Balzar; Sjoqvist, Folke; Strindberg, Bengt; Sundwall, Anders. Dept. of Clinical Pharmacology, Medical School, 581 85 Linkoping, Sweden Comparative pharmacokinetics of oxazepam and nortriptyline after single oral doses in man. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 165-173).**

The comparative pharmacokinetics of oxazepam (OZ) and nortriptyline (NT) were compared after single oral doses in man. Twelve Ss were given OZ and NT on two different occasions and the plasma concentrations were determined for several days after drug administration. About 80% of the OZ dose could be accounted for in the urine as its glucuronide. About 1% of the dose was excreted unchanged in the urine and less than 10% in the feces. Only a small percent of a given dose of NT is excreted unchanged in the urine; most of the drug is hydroxylated. No relationship was found between plasma half-lives or clearances of OZ and NT indicating no correlation between a subject's ability to oxidize NT and to conjugate OZ. 18 references. (Author abstract modified)

160473 Lingjaerde, Odd, Jr. Dept. of Neurochemistry, Univ. Psychiatric Clinic, Vinderen, Oslo 3, Norway Effect of benzodiazepines on uptake and efflux of serotonin in human blood platelets in vitro. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 225-233).**

The effects of chlordiazepoxide hydrochloride (CDP HCl) and medazepam hydrochloride (MZ HCl) on uptake and efflux of 5-hydroxytryptamine (5-HT) in human blood platelets were studied. Platelets from healthy Ss were isolated and resuspended in a phosphate buffered medium. About 50% inhibition of the uptake was obtained with CDP HCl and MZ HC1. The inhibitory effect of MZ HCl was found to be uncompetitive vs 5-HT and vs chloride and unaffected by potassium. The inhibitory effect of MZ seems to be additive with that of imipramine. The effects of CDP and MZ on the spontaneous efflux of 14C-5-HT in a medium with a high concentration of 5-HT is noted. The relevance of the findings to the clinical effects of benzodiazepines is discussed. 16 references. (Author abstract modified)

160537 Barkov, N. Army Foreign Science and Technology Center, Charlottesville, VA /Nature of the effect of neuroleptics and antidepressants on conditioned and unconditioned reflexes./ Vserosiiskoe nauchnoe obshchestvo nevropatologov i psikihiatrov. Springfield, Va., NTIS, AD-762792, 1973, 7 p. PC:$3.00 MF: 95 cents.

A comparative study is presented of the effect of neuroleptics (aminazine and tryphthazine) and the antidepressant imipramine on conditioned reflexes and unconditioned avoidance reactions.

160642 Lapierre, Y. D.; Elie, R.; Tetreault, L. University of Ottawa, Ottawa, Canada Diazepam and benzoctamine: effects on certain objective parameters of muscular spasticity. **Current Therapeutic Research. 15(8):521-533, 1973.**

The effects of diazepam and benzoctamine on certain objective parameters of muscular spasticity were investigated, using 12 neuropsychiatric patients with muscular spasticity. Measurements of the subsegments of the patellar reflex as well as the angular displacement of the reflex were performed at 1 1/2 and 3 hours following diazepam ingestion. Recordings of electromyographic evoked potentials with an isometric standardized effort were taken. Modifications in the reflex configuration were observed with diazepam. Changes were also observed in the evoked electromyographic potentials during an isometric contraction. The only modifications observed at 2 hours following the ingestion of benzoctamine were on the latency time of the patellar reflex. These effects would not necessarily be due to the drug's tranquilizing properties as the other tranquilizer, benzoctamine, did not produce the same type of response. 30 references. (Author abstract modified)

160650 Rinn, U. K.; Sonneinen, V.; Siirtola, T. Department of Neurology, University of Turku, 20520 Turku 52, Finland Acid monoamine metabolites in the cerebrospinal fluid of parkinsonian patients treated with levodopa alone or combined with decarboxylase inhibitor. **European Neurology (Basel). 9(6):349-362, 1973.**

Concentrations of homovanillic acid (HVA) and 5-hydroxyindoleacetic acid (5-HIAA) in the cerebrospinal fluid (CSF) were studied before and during treatment of 151 parkinsonian patients with levodopa alone or combined with a decarboxylase inhibitor. In patients with Parkinson's disease the concentrations of HVA and 5-HIAA in the CSF before therapy and after administration of probenecid were found to be significantly lower than those in control subjects. Long-term treatment with levodopa alone or combined with a decarboxylase inhibitor induced an increase in the concentration of HVA in the CSF which correlated significantly with the dose of the drug but not with the clinical improvement. However, the concentrations of HVA during combined treatment were considerably lower than during treatment with levodopa alone, using therapeutically equivalent dosages. A part of the HVA found in the CSF during levodopa treatment originates from the brain capillary walls. Treatment with levodopa and decarboxylase inhibitor decreased the concentration of 5-HIAA in the CSF. During treatment with levodopa alone, there was a significant negative correlation with the dose of levodopa as well as with libido and psychotic behavior after 6 and 12 months' treatment, respectively. 53 references. (Author abstract modified)

160653 AvRuskin, T. W.; Sau, K.; Tang, S.; Juan, C. Department of Pediatrics, Brookdale Hospital Medical Center, Linden Blvd. at Brookdale Plaza, Brooklyn, NY 11212 Childhood acromegaly: successful therapy with conventional radiation and effects of chlorpromazine on growth hormone and prolactin secretion. **Journal of Clinical Endocrinology and Metabolism. 37(3):380-388, 1973.**

A preadolescent girl with gigantism is described in whom growth hormone, insulin, prolactin, thyrotropin and triiodothyronine measurements were performed prior to conventional radiation therapy. An acute and chronic (62 days) trial and evaluation of chlorpromazine failed to decrease growth hormone or increase prolactin concentrations. Radiation therapy was associated with a prompt return to normal levels of fasting growth hormone concentrations 3 months following 5000 rad administration. A lack of fall in growth hormone levels while on chlorpromazine therapy suggests that chronic treatment with this drug is ineffective. Conventional x-ray therapy in this patient with childhood acromegaly was effective and may be the treatment of choice when noninvasive therapy is indicated. 43 references. (Author abstract)

160749 Cushman, Paul. no address Effects of narcotics on endocrine function. Progress report, NIMH Grant MH-18408, 1972, 4 p.

The endocrinological effects and immunological consequences of narcotic abuse were studied. Ss were all in a supervised methadone maintenance program. The criminal activities of patients in the methadone maintenance program were summarized. Testosterone and plasma hormone levels were analyzed. Project relevance to rehabilitation is discussed, and future project goals outlined. 12 references.

160802 Messiha, Fathy S.; Grof, Stanislav. School of Medicine, Texas Tech University, Lubbock, TX 79409 D-Lysergic acid diethylamide (LSD) -- effect on biogenic amines excretion in man. **Biochemical Pharmacology (Oxford). 22(18):2352-2354, 1973.**

The biogenic amines 5-hydroxytryptamine (5-HT) and dopamine (DA) and their respective acid metabolites were studied to see if LSD causes any biochemical changes associated with behavioral manifestation. Twenty four hour urine collections were made for seven male subjects on the day prior to and the day of LSD administration. The results suggest that decreased urinary excretion of 5-HT and DA produced by LSD may reflect decreased turnover rate of these monoamines. It remains to be determined if this finding relates to the basic mode of action of LSD in man. 36 references.

160824 Fann, William E.; Davis, John M.; Wilson, Ian C. Department of Psychiatry and Pharmacology, Duke University Medical Center, P.O. Box 3812, Durham, NC 27710 Methylphenidate in tardive dyskinesia. **American Journal of Psychiatry. 130(8):922-924, 1973.**

Methylphenidate, an amphetamine like central nervous system (CNS) stimulant used successfully in reversing acute neuroleptic induced neurological symptoms, was given in a placebo controlled study to 17 patients with tardive dyskinesia. On global ratings three subjects were improved, six showed an increase in symptoms, and eight showed no changes. It is concluded that methylphenidate is not effective in tardive dyskinesia and that the results of the study are in keeping with present knowledge about CNS pharmacology. 34 references. (Journal abstract)

160825 Curran, John P. 527 Medical Arts Building, 825 Nicollet Mall, Minneapolis, MN 55402 Management of tardive dyskinesia with thiopropazate. **American Journal of Psychiatry. 130(8):925-927, 1973.**

Management of two severe cases of tardive dyskinesia with thiopropazate is described. It is concluded that the drug has a place in the management of tardive dyskensia even though its mechanism of action and long-range effects are unknown. It is cautioned that it should be used only in severe cases. 8 references. (Journal abstract)

160826 Perry, Thomas L.; Hemmings, Susan; Drummond, George I.; Hansen, Shirley; Gjessing, Leiv R. Department of Pharmacology, University of British Columbia, Vancouver 8, B.C., Canada Urinary cyclic AMP in periodic catatonia. **American Journal of Psychiatry. 130(8):927-929, 1973.**

Urinary excretion of 3',5'-cyclic adenosine monophosphate (cyclic AMP) was measured in two patients with long established periodic catatonia. One patient exhibited profound stupor in his psychotic phases, while the other exhibited catatonic excitement. No significant differences in urinary cyclic AMP levels were found in either patient between the interval and psychotic phases, nor were there any significant changes in cyclic AMP excretion at or just before the time of abrupt switch from the interval of normality to catatonic stupor or excitement. 9 references. (Author abstract)

161145 Green, A. L. Department of Biochemistry, University of Strathclyde, 2014 George St., Glasgow, G1 1XW, Scotland Differential effects on mouse brain catecholamine turnover of chlorpromazine, trifluoperazine and closely-related not-tranquillizing analogues. **Journal of Pharmacy and Pharmacology (London). 25(3):267-269, 1973.**

In a letter to the editor, the differential effects on mouse brain catecholamine turnover of chlorpromazine, trifluperazine and closely related non-tranquilizing analogues are reported. Separate experiments showed that none of the phenothiazines on their own significantly changed the normal brain levels of either noradrenaline or dopamine. Alpha-methyltyrosine methyl ester hydrochloride on its own lowered the brain noradrenaline by over 30% in 2 h and the dopamine by nearly 50%. Chlorpromazine and trifluoperazine significantly increased the rate of disappearance of both catecholamines after alpha-methyltyrosine, but whereas chlorpromazine had more effect on noradrenaline than on dopamine, trifluoperazine, which is the stronger tranquilizer in man, had a greater effect on dopamine than on noradrenaline. Both drugs caused sedation and loss of muscle tone, but these effects were more pronounced in the mice treated with chlorpromazine. These results are consistent with increases in the turnover of noradrenaline and dopamine being causally connected with tranquilizing activity, and also support the suggestion that the sedation produced by tranquilizers arises from effects on noradrenergic rather than dopaminergic neurons. 18 references. (Author abstract modified)

161558 Matsumoto, Keizo; Oomoto, Takashi. Okayama University Medical School, Japan Treatment of Parkinsonism by the use of L-Dopa and thalamic operations. **Diagnosis and Treatment (Tokyo). 60(1):192-198, 1972.**

The effects of L-Dopa on Parkinsonism are studied based on 23 outpatients and 21 hospitalized patients with Parkinsonism, and the effects of thalamic operation on 103 cases of Parkinsonism are reviewed. The success of the drug on various Parkinson symptoms is delineated. Thalamic operation was seen to be about 63% effective is relieving symptoms. 16 references.

161673 Tolosa, Eduardo. Dept. of Neurology, Univ. of Minnesota, Minneapolis, MN 55455 Parkinson's disease: modern treatment. **Minnesota Medicine. 56(6):497-502, 1973.**

Modern treatment of Parkinson's disease is reported. The finding of a reduced dopamine concentration in the striatum of patients with Parkinson's disease prompted the introduction of L-Dopa in the treatment of this disorder. L-Dopa has been confirmed as the most potent antiparkinsonian agent available. Amantadime hydrochloride, the anticholinergic drugs, amphetamines and the tricyclic antidepressants have proved useful adjuncts to the L-Dopa regime. Successes and drawbacks in treatment with the antiparkinsonian agents are noted. 54 references. (Author abstract modified)

161732 Mendels, J.; Frazer, A. University of Pennsylvania School of Medicine and Affective Diseases Research Unit, VA Hospital, Philadelphia, PA 19104 Intracellular lithium concentration and clinical response: towards a membrane theory of depression. **Journal of Psychiatric Research (Oxford). 10(1):9-18, 1973.**

Examination of the concentration of lithium in the erythrocyte (RBC) of depressed patients treated with lithium carbonate shows that clinical improvement was significantly associated with a higher RBC lithium concentration and a higher RBC lithium: plasma lithium ratio, while the dose of lithium, duration of treatment and plasma lithium concentration were not different among responders and nonresponders. The differences in cellular lithium concentration indicate some difference in the transfer of lithium across the cell membrane. It is concluded that this measurement may provide a means of anticipating the clinical response of depressed patients to lithium carbonate after 7 days of treatment. 35 references. (Author abstract modified)

161907 Janowsky, David S.; El-Yousef, M. Khaled; Davis, John M.; Fann, William E. Vanderbilt University School of Medicine, Nashville, TN 37203 Antagonism of guanethidine by chlorpromazine. **American Journal of Psychiatry. 130(7):808-812, 1973.**

Reversal of the antihypertensive effects of guanethidine by chlorpromazine six times, in use with four hypertensive psychiatric patients is discussed. It is postulated that this drug - drug interaction occurs because chlorpromazine blocks the neuronal amine-guanethidine uptake pump, denying guanethidine access to its site of action. 8 references. (Author abstract)

162719 Rado, J. P. Isotopic Department and Metabolic Unit, Janos Hospital, Budapest, Hungary Water intoxication during carbamazepine treatment. **British Medical Journal (London). 3(5878):479, 1973.**

Water intoxication during carbamazepine treatment is discussed. Carbamazepine has recently been shown to have a vasopressin like action and, like chlorpropamide, to be effective in controlling polyuria in patients with diabetes insipidus. The case cited illustrates that carbamazepine, given to a patient suffering from depression and psychogenic polydipsia, induced inappropriate secretion of antidiuretic hormone and water intoxication. 11 references. (Author abstract modified)

162720 Bulpitt, C. J.; Dollery, C. T. Department of Public Health, London School of Hygiene and Tropical Medicine, London WC1E 7HT, England Side effects of hypotensive agents evaluated by a self-administered questionnaire. **British Medical Journal (London). 3(5878):485-490, 1973.**

The side-effects of hypotensive agents were evaluated by means of a self-administered questionnaire, by 477 patients in a hypertension clinic. Methyldopa therapy was associated with sleepiness, weakness of the limbs, sleeping longer at night, and rising more frequently at night to pass urine. It was found that diarrhea, impotence, failure of ejaculation, blurred vision, depression, and the symptoms of postural hypotension were not related to methyldopa therapy, and that bethanidine administration was related to postural hypotension, impotence, and failure of ejaculation but not to weakness of the limbs, blurred vision,

depression or diarrhea. Patients receiving guanethidine complained of postural hypotension, failure of ejaculation, and had their bowels open more frequently. Similarly, patients receiving propranolol had an increased frequency of defecation but also tended to complain of weakness of the limbs. It was concluded that drug combinations did not increase the prevalence of symptoms and different therapeutic regimens may be used with a view to reducing the prevalence of side-effects. 12 references. (Author abstract modified)

162880 Brimijoin Stephen; Capek, Patrick; Dyck, Peter James. Departments of Pharmacology and Neurology, Mayo Clinic, Rochester, MN 55901 Axonal transport of dopamine-beta-hydroxylase by human sural nerves in vitro. **Science. 180(4092):1295-1297, 1973.**

The rate of axonal transport of dopamine-beta-hydroxylase by human sural nerves in vitro was investigated. Results obtained with normal nerves are reported along with initial observations that point to abnormalities of transport in certain kinds of neuropathy. It was found that DBH activity accumulated above a ligature on biopsy samples of the nerves. The rate of accumulation indicated that this enzyme was transported distally at a velocity of 2 millimeters per hour. Axoplasmic transport of DBH was greatly reduced in sural nerves from a few patients with peripheral neuropathies. (Journal abstract modified)

163022 Perez-Reyes, M.; Timmons, Martha C.; Lipton, M. A.; Christensen, H. D.; Davis, K. H.; Wall, M. E. Dept. of Psychiatry, University of North Carolina School of Medicine, Chapel Hill, NC 27514 A comparison of the pharmacological activity of delta9-tetrahydrocannabinol and its monohydroxylated metabolites in man. **Experientia (Basel). 29(8):1009-1010, 1973.**

A comparison of the effects of delta9-tetrahydrocannabinol (delta9-THC) and its monohydroxylated metabolites in human subjects is presented. The results indicate that delta9-THC and its 11-hydroxylated metabolite have similar potencies to accelerate the heartrate and achieve the desired level of 'high': the 8beta-hydroxylated metabolite is less potent, and the 8alpha-hydroxylated derivative appears to have no potency at the doses and rate of infusion utilized. 5 references.

163747 Volavka, J.; Crown, P.; Dornbush, R.; Feldstein, Stanley; Fink, Max. Department of Psychiatry, New York Medical College, 5 E. 102 St., New York, NY 10029 EEG, heart rate and mood change ('high') after cannabis. **32(1):11-25, 1973. Psychopharmacologia (Berlin).**

Fourteen experienced marihuana users smoked marihuana, hashish, delta9-tetrahydrocannabinol (THC), and placebo. Electroencephalogram (EEG), electrocardiogram (ECG), and ratings of subjective feelings of high and pleasantness were recorded. EEGs were processed by period analysis. In EEG, marihuana and THC increased the amount of alpha activity, and the three cannabis preparations decreased the amount of beta activity. The average frequency of alpha activity was decreased by 0.15 to 0.20c/sec after marihuana, hashish and THC. The peak EEG effect occurred during the first 10 min after smoking; most of the changes disappeared after 40 min. Heartrate was increased by all the three drugs, and the effect persisted for the entire observation period (50 min). Feelings of high were elicited by each cannabis preparation. This was not true of the pleasantness of the experience: only marihuana and hashish were perceived as more pleasant than placebo. Intensity of high increased with the amount of alpha activity, and decreased with the average alpha frequency. Pleasantness was unrelated to the EEG. The high showed a linear increase with heartrate, whereas pleasantness of the experience was an inverted U function of heartrate. 31 references. (Author abstract)

163782 Marjerrison, G.; Neufeldt, A. H.; Holmes, V.; Ho, T. Psychiatric Research Division, University Hospital, Saskatoon, Canada Comparative psychophysiological and mood effects of diazepam and dipotassium clorazepate. **Biological Psychiatry. 7(1):31-41, 1973.**

The effects of acute equimolar dosage of two drugs, diazepam and dipotassium clorazepate, were studied in 26 volunteer subjects, each drug being tested in each subject with sequences randomized and at least a 14 day period between drugs. Subjects' expectations were set for either a tranquillizing or a stimulating effect. Significant main effects were found for both drugs on mean integrated amplitude (MIA) and coefficient of variation (CV) scores from the integrated electrocardiogram (EEG), on mood and attentiveness, in the direction that would be expected with tranquillization, and the extent of some of these changes were found to correlate with the measure of perceptual field-dependence (Rod-and-Frame Test). Tranquillizing or stimulating set instructions produced no significant main or interactive effect.

The only significant difference between the drugs was found to be in the amount of beta activity induced in the postdrug EEGs, as evaluated clinically, diazepam inducing significantly more beta with its characteristic spindling form. 13 references. (Author abstract modified)

163800 Beckett, A. H.; Shenoy, E. V. B. Department of Pharmacy, Chelsea College (University of London), Manresa Road, London, S. W. 3, England The effect of N-alkyl chain length and stereochemistry on the absorption, metabolism and urinary excretion of N-alkylamphetamines in man. **Journal of Pharmacy and Pharmacology (London). 25(10):793-799, 1973.**

Urinary excretion in man, of the unchanged drug and metabolite amphetamine, was investigated after the (plus) and (minus) isomers of methyl, ethyl, n-propyl and n-butyl-amphetamine had been taken by mouth under acidic urinary pH. The total metabolism of (plus) methyl, ethyl, and n-propyl-amphetamine was greater than that of the corresponding (minus) isomers but there was no difference in the total metabolism of the (plus) and (minus)-n-butylamphetamine. A direct correlation was obtained for the (plus) but not the (minus) isomers between the partition coefficient of the compounds in an n-heptane/aqueous system, their buccal absorption and the total metabolism. The (plus) isomers of methyl and ethyl-amphetamine were N-dealkylated more than their (minus)-enantiomorphs but (minus)n-propylamphetamine was Nminusdealkylated more than the (plus) isomer. 13 references. (Author abstract)

163805 Bowen, Florry P.; Brady, Eileen; Yahr, Melvin D. Department of Neurology, College of Physicians and Surgeons of Columbia University, 630 West 168th Street, New York, NY Sensorimotor coordination in Parkinson's disease before and after levodopa therapy. **Neurology. 23(10):1101-1106, 1973.**

Parkinson patients who benefited neurologically from levodopa therapy were tested on two types of tasks of motor ability: 1) repetitive tapping of a button for a 10 second period under unimanual and bimanual conditions; and 2) tracking a randomly moving light. It was found that concomitant with the neurologic improvement, the parkinson patients on levodopa therapy improved on both tapping and tracking after taking the drug for an average of 4 weeks. This improvement was still present after being on levodopa therapy for 1 year. Parkinson patients on standard anticholinergic drugs did not exhibit a significant change in the tapping and tracking task for the short-term (4 week period). There was also little change in normal subjects tested again after a 4 week period, although some practice effect was noted in these subjects. 23 references. (Author abstract)

164443 Martin, William Ewart. University of Minnesota, Minneapolis, MN The metabolism of 3H-tyrosine and 3H-dihydroxyphenylalanine in Parkinson's disease. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-10671 HC$10.00 MF$4.00 131 p.**

Dosages of 3H-tyrosine and 3H-dihydroxyphenylalanine (3H-DOPA) were administered intravenously to parkinsonian patients and control subjects to determine the mechanisms of biochemical abnormalities in parkinsonism. It was observed that: 1) isotope labeled metabolites are found in plasma, lumbar spinal fluid and urine; 2) more labelled dopamine metabolites are present than are labelled NE and E metabolites after 3H-DOPA infusion than after 3H-tyrosine infusion; 3) differences between parkinsonian and control subjects consist of greater urinary excretion of tyrosine metabolites, dopamine metabolites, and NE and E metabolites by the parkinsonian patients after 3H-tyrosine infusion; and 4) after 3H-DOPA infusion, parkinsonian patients excrete slightly greater amounts of DOPA metabolites, dopamine metabolites, and NE and E metabolites than do control subjects. The results suggest abnormalities of catecholamine metabolism in parkinsonism, but do not indicate whether the abnormalities are restricted to the brain or age part of a general metabolic defect. (Journal abstract modified)

164679 Topiar, A.; Kanczucka, V. Psychiatricka lecebna, Opava, Cezchoslovakia /Anuria after the application of chlorpromazine./ Anurie po aplikaci chlorpromazinu. **Prakticky Lekar (Praha). 53(12):474-475, 1973.**

The case history of a 42-year-old neurasthenic man injected with 25mg of Plegomazin (chlorpromazine) is described. Chlorpromazine is among the most popular neuroleptics because it has a quieting effect on overactive psychiatric patients but may have untoward reactions if prescribed in other cases. The patient in this case developed anuria and did not void for 24 hours, possibly attributable to his being a heavy smoker

and beer drinker since alcohol is known to make the effects of chlorpromazine more potent. 8 references.

165191 Klawans, Harold L., Jr. 1753 West Congress Parkway, Chicago, IL 60612 Some observations on the pharmacology of the striatum. **Psychiatric Forum. 4(1):16-26, 1973.**

The pharmacology and the pathophysiology of the striatum are discussed with reference to parkinsonism, chorea and tardive dyskinesia. The altered physiology which results in parkinsonism is the altered function of striatal neurons. The striatal defect can be thought of as presynaptic and often potentially reversible. It is assumed that the chorea produced by L-dopa in parkinsonian patients is due to the activity of dopamine on the striatal neurons and the defect may be postsynaptic. In Huntington's chorea (HC) there is a marked degeneration of the striatal neurons but the striatal dopamine concentration is normal, which suggests a functioning nigrostriatal pathway. Parkinsonian symptoms and cholinergic mechanisms in HC are discussed. Dopaminergic mechanisms and cholinergic influences on tardive dyskinesias are discussed. 27 references.

165193 Green, Joseph B. Dept. of Neurology, Medical College of Georgia, Augusta, GA 30902 Epilepsy in inherited mental and motor disorders. **Psychiatric Forum. 4(1):39-45, 1973.**

A literature study of the occurrence of epilepsy in inherited mental and motor disorders is reported. It is felt that epilepsy may be a prominent feature of Huntington's disease, the Unverricht - Lundborg and Ramsay Hunt forms of progressive myoclonus epilepsy and some of the cerebral lipidoses. Case histories are cited to illustrate how the appearance of seizures occurs at different stages of each disease, to note the inherited character of the disease and to report on the clinical management of the disorder. Some of the problems encountered in the drug management of epilepsy are discussed.

166019 Fann, William E. Duke University School of Medicine, Durham, NC Interactions of psychotropic drugs in the elderly. **Postgraduate Medicine. 53(3):182-186, 1973.**

Some of the known interactions of important psychotropic agents are presented, and their clinical relevance and some significant underlying pharmacological mechanisms are discussed, particularly as they affect the older, often more vulnerable patient. When some of the psychotropic drugs are used concomitantly or in combination with other agents such as antihypertensives, therapeutic effects may be nullified or toxicity may result. It is suggested that cautious prescribing habits and knowledge of the mechanisms of drug interactions are necessary to prevent harmful sequelae. 14 references.

166071 Brightwell, Dennis R.; Halmi, Katherine A.; Finn, Richard. Department of Psychiatry, University of Iowa, Iowa City, IA Lithium-induced polydipsia and polyuria: mechanism of action? **Biological Psychiatry. 7(2):167-171, 1973.**

The mechanism of action of lithium induced polydipsia and polyuria was examined in a case history. The subject was a 27-year-old man with a 2 year history of manic-depressive illness treated with lithium carbonate. There was an increased frequency of urination and increased thirst. During 2 weeks on placebo, the patient's 24 hr urine output fell from 3500 to 1600 ml. It is suggested that on lithium the patient did not secrete vasopressin maximally in response to water withdrawal as do normal people which indicates a mild defect in the hypothalamo - neurohypophysial system. 14 references.

166716 Fann, William E.; Davis, John M.; Janowsky, D. S.; Sekerke, H. J.; Schmidt, D. M. Department of Psychiatry, Duke University Medical Center, Durham, NC 27710 Chlorpromazine: effects of antacids on its gastrointestinal absorption. **Journal of Clinical Pharmacology. 13(10):388-390, 1973.**

Six subjects were given liquid chlorpromazine (CPZ) orally alone and with gel antacid concomitantly, and plasma levels of CPZ were determined by gas chromatography. Plasma CPZ levels after gel antacid - CPZ combination were significantly lower than after CPZ alone. 8 references.

166717 Smyth, Robert D.; Lee, John K.; Polk, Andrew; Chemburkar, Pramod B.; Savacool, Anne M. William H. Rorer, Inc., Research Division, 500 Virginia Drive, Fort Washington, PA 19034 Bioavalability of methaqualone. **Journal of Clinical Pharmacology. 13(10):391-400, 1973.**

The comparative bioavailability, absorption, and excretion characteristics of methaqualone (MTQ) were determined from tablet and capsule dosage forms using both 14C and unlabeled drug.

Bioavailability studies with these formulations showed significant correlation between dose and serum level over a 150-600mg MTQ dose range and equivalent bioavailability from either a 150mg or 300mg tablet, thus assuring adequate and reproducible therapeutic effect from both dosage strengths. The absorption phase was essentially complete in the first hour. A comparison of spectrophotometric, spectrofluorometric, and isotopic analysis showed that the three methods were comparable in the analysis of serum MTQ following a therapeutic dose of 150-300mg. The significance of the testing sequence, development of the analytical methodology, and statistical design of the studies are discussed in relation to the physiochemical, metabolic, and pharmacologic properties of methaqualone. 24 references.

166719 Ede, Martin C. Moore. Department of Physiology, Harvard Medical School, Boston, MA 02115 Circadian rhythms of drug effectiveness and toxicity. **Clinical Pharmacology and Therapeutics. 14(6):925-935, 1973.**

The therapeutic and toxic effects of many drugs are discussed in terms of circadian rhythms. The physiological mechanisms underlying the rhythmicity are discussed. It is suggested that circadian rhythms in the rates of absorption, hepatic conjugation, and urinary excretion may all contribute toward the overall circadian variation in responsiveness to a drug. It is concluded that the choice of the correct time of day for drug administration is important in certain clinical situations. 77 references. (Author abstract modified)

166722 Morgan, John P.; Wardell, William; Lasagna, Louis; Mazzull0, John M.; Weintraub, Michael; Mudholkar, Govind S.; Mietlowski, William. Department of Pharmacology and Toxicology, University of Rochester School of Medicine, Rochester, NY Mebutamate as a hypnotic: clinical trial and statistical considerations. **Clinical Pharmacology and Therapeutics. 14(6):1001-1012, 1973.**

Mebutamate was evaluated as a hypnotic in a geriatric, insomniac nursing home population. Two doses of mebutamate, 300 and 600mg, were compared to 100 and 150mg of secobarbital sodium and placebo, all administered randomly as identical tablets. Three cycles of test drugs were given and each nightly dose was alternated with the patient's own usual sleeping pill. Twenty two patients completed at least two consecutive cycles of the trial; 15 completed all three. A sleep index computed from usual sleeping pill nights and subjected to principal component analysis constituted the primary statistical evaluation. Supporting analysis used composite categories of questions called hypnotic power, global evaluation, and freedom from hangover. Mebutamate performed well and had little toxicity. In hypnotic power and global evaluation the mean effect of mebutamate, 600mg and 300mg, bracketed that of secobarbital, 150mg. Statistical significance over placebo was reached for the higher doses of each active drug and the lower dose of mebutamate. No differences in freedom from hangover were noted. 42 references. (Author abstract)

166726 van Praag, H. M.; Flentge, F.; Korf, J.; Dols, L. C. W.; Schut, T. Department of Biological Psychiatry, Psychiatric University Clinic, Groningen, The Netherlands The influence of probenecid on the metabolism of serotonin, dopamine and their precursors in man. **Psychopharmacologia (Berlin). 33(2):141-151, 1973.**

The influence of probenecid on the metabolism of serotonin, dopamine and their precursors in man was examined. The serum tryptophan level in human individuals was lowered but the cerebrospinal fluid (CSF) concentration remains unchanged. After an oral tryptophan load, however, the CSF tryptophan concentration did increase. It is suggested that, in man, endogenously released and exogenous tryptophan enter different metabolic pools in the brain. After an oral load of l-tryptophan, for the most part depressive patients showed a rapid increase in CSF tryptophan concentration and a less marked rise of the CSF 5-hydroxyindole acetic acid level. It suggested that, in the depressive patient the tryptophan metabolizing capacity is disturbed. After an oral load of l-tryptophan the CSF homovanillic acid (HVA) concentration increased. It is suggested that tryptophan is transformed to 5-hydroxytryptamine (5-HT) in dopaminergic neurons, and this 5-HT may supersede the dopamine from the storage sites. The CSF concentrations of 5-HIAA, HVA, tryptophan and tyrosine showed no systematic variations during the day. 36 references. (Author abstract modified)

166790 Giri, Shri N.; Peoples, Stuart A. Department of Physiological Sciences, School of Veterinary Medicine, University of California, Davis, CA 95616 Potentiating effect of chlorpromazine on glyceryl guaiacolate ether induced hemolysis of rat, dog and human blood in vitro. **Life Sciences (Oxford). 13(9):1189-1200, 1973.**

The hemolytic effect of glyceryl guaiacolate ether (GGF) with and without chlorpromazine (CPZ) was studied in vitro on rat, dog and human blood. The lowest concentration of GGE which could produce hemolysis of rat red cells was 0.15 M. The time for 50% hemolysis (TH50) of blood depended upon the concentration of drug and dilution of blood. A higher concentration of GGE hemolyzed blood much faster than the lower. There was a progressive increase in the TH50 when 0.15 M GGF was tested on blood samples containing increasing numbers of red cells. CPZ in all cases had its own hemolytic effect at higher concentrations. In this regard rat blood was 10 times more sensitive than dog and human. A striking potentiating effect of CPZ was observed on the hemolytic effect of GGE. The magnitude of potentiation in all cases was directly related to the concentrations of CPZ. Dog blood was found relatively mroe sensitive to the hemolytic effect of the combination of CPZ and GGE as compared to the rat and human, which acted alike. 16 references. (Author abstract)

166941 Inanaga, Kazutoyo; Kotorii, Makoto; Isozaki, Hiroshi. Department of Neuropsychiatry, Kurume University, School of Medicine, Japan The effect of medazepam (S-804) on the photopalpebral reflex. **Clinical Psychiatry (Tokyo). 14(9):825-830, 1972.**

The effect of medazepam (S-804) and diazepam on the photopalpebral reflex are compared, based on a double-blind test in which 10 normal adults were treated with medazepam (10mg) and diazepam (3mg) orally with a 4 week intermission between treatment with either of the two drugs. The photopalpebral reflex was recorded under no drug influence, under medazepam treatment, and diazepam treatment compared. The results show: 1) no statistically significant difference was observed between the reflexes under no drug influence and those under medazepam treatment; 2) a statistically significant difference was observed between the reflexes under no drug influence and under diazepam treatment; and 3) diazepam (3mg) is significantly stronger than medazepam (10mg) in prohibiting the photopalpebral reflex. 15 references.

166976 Anden, Nils-Erik. Farmakologiska institutionen, Goteborgs Universitet, Goteborg, Sweden /Pharmacological aspects of the working mechanism of neuroleptics./ Farmakologiska synpunkter pa neuroleptikas verkningsmekanismer. **Nordisk Psykiatrisk Tidsskrift (Odense, Denmark). 26(6):341, 1972.**

Pharmacological aspects of the working mechanisms of neuroleptics are discussed. Differences and similarities in the effects of reserpine and chlorpromazine, the major representatives of the two neuroleptic groups, are compared. Both groups produce the so-called neuroleptic syndrome without decreasing the degree of consciousness and only slightly lowering the capacity to react the outside stimuli, extrapyramidal symptoms, and certain endocrine disorders. Their principal differences are in their side-effects. Reserpine prevents release of noradrenaline from the sympathetic nervous system, while chlorpromazine hinders the noradrenaline action by blocking the adrenergic alpha receptors. Extrapyramidal symptoms are produced by blocking dopamine transmission in the striate body. Reserpine acts presynaptically, the chlorpromazine group postsynaptically.

166982 Gram, Lars F.; Overo, Kerstin Fredericson; Anderson, John; Kirk, Lars. Psykokemisk institut, Rigshospitalet, Blegdamsvej 9, 2100 Kobenhavn O, Denmark /Lu 5-003 in antidepressive therapy. A controlled clinical test with simultaneous measurement of pharmacokinetic parameters. Preliminary report. Lu 5-003 i antidepressiv terapi. En kontrolleret klinisk gennemprovning med samtidig maling af farmakokinetiske parametre. En forelobig meddelelse. **Nordisk Psykiatrisk Tidssdrift (Odense, Denmark). 26(6):361, 1972.**

Results of testing 13 female patients aged 24 to 73 for the antidepressive effect of Lu 5-003 and imipramine are reported. Random allocation and the double-blind method were used. Eight patients were administered Lu 5-003 and five imipramine. Dosage was increased from 75 to 200mg daily for 5 days, then remained fixed. Clinical evaluation was on the Hamilton rating scale, the Beck self-rating scale, and a specially constructed side-effect scale. Correlation between depression scales was good. A 4 week score as a percentage of the pretreatment score shows imipramine with a better antidepressive effect than Lu 5-003. The probability that the difference found was accidental is less than 10%. Side-effects for both groups were few. Pharmacokinetic tests showed the steady state plasma level higher in patients treated with Lu 5-003, but are inconclusive because of simultaneous treatment with chlorprothixene.

167232 Domenichini, E.; Pagnin, A.; Fischetti, M.; Cereda, E. University of Pavia, Pavia, Italy Flurazepam versus diazepam in anaesthesia: a clinical study. **Current Therapeutic Research. 15(8):534-539, 1973.**

A comparative trial was made during the induction of anesthesia between intravenous flurazepam and diazepam at various dosage levels. A dose of 1.5mg/kg of flurazepam was effective in the absence of premedication while in the premedicated patients this dose decreased to 1.0mg/kg. The more active dose for diazepam was 0.5mg/kg. Venous complications were markedly reduced after flurazepam. 7 references. (Author abstract)

14 MECHANISM OF ACTION: BEHAVIORAL

149649 Casswell, Sally; Marks, David F. Psychology Department, University of Otago, Post Office Box 56, Dunedin, New Zealand Cannabis and temporal disintegration in experienced and naive subjects. **Science. 179(4075):803-805, 1973.**

The effects of 3.3and 6.6mg of delta9-tetrahydrocannabinol and of placebo on performance of three cognitive tasks were compared for naive Ss and experienced cannabis smokers. No differences in performance or reported subjective effects were found between these two groups. A significant decrement was found following dosage at both levels, replicating earlier findings of temporal disintegration during cannabis intoxication. Approximately equal subjective effects were reported by the two groups; however, this does not rule out the possibility of differing experiences of naive and experienced Ss. These results may be due to a difference in the S's interpretation of the changes in the state of consciousness or to the type of rating scale employed in this study. 18 references. (Author abstract modified)

149717 Hall, Peter Hugo. University of California at Los Angeles, Los Angeles, CA The effect of a stimulant drug (methamphetamine) on cognitive impulsivity, planning, new learning, and social behavior in hyperactive children. (Ph.D. dissertation) **Dissertation Abstracts International. Ann Arbor, Univ. Microfilms No. 73-10428. HC$10.00. MF$4.00. 95 p.**

The effect of methamphetamine on hyperkinetic minimally brain-damaged children's performance on measures of cognitive impulsivity, planning, new learning, IQ, and social behavior was investigated. A double-blind, pretest posttest, placebo control group design was utilized. The 32 male Ss were randomly assigned to treatment (drug and placebo), use of alternate test forms, and counterbalancing of tests. The hyperkinesis of the Ss was based on clinical impression determined by three major categories of sampling criteria: background, physical examination and medical history. Children ranged in age from 72 to 130 months with normal IQ's on either predrug or ondrug measures of a brief form of the WISC. A one-way analysis of covariance was performed for all drug and placebo ondrug measures using predrug scores as the covariate. Medicated Ss made singificantly better scores than placebo controls on the major dependent measures of impulsivity, social behavior and one of two posited measures of new learning. No significant differences were obtained between treatment groups on general intelligence. Contrary to prediction, statistically significant improvement in favor of drug treated Ss was not found on measures planning and one of two postulated dimensions of new learning. Comparison of reflection impulsivity scores obtained by drug treated Ss and a normal sample suggested the possibility that visual discrimination problems often attributed to hyperkinetic children were more a function of an impulsive conceptual tempo than an underlying visual perceptual deficit. (Journal abstract modified)

149749 Paroli, E. Cattedra di Farmacologia Medica dell'Universita di Roma, Italy /Psychopharmacological aspects of coffee and of caffeine./ Aspetti psicofarmacologici del caffe e della caffeina. **Minerva Medica Giuliana (Torino). 63(61):3319-3323, 1972.**

Controlled studies have demonstrated increased subjective receptivity to environmental stimuli as a result of caffeine. Reaction time to light stimuli is reduced 4% by a single cup of coffee and 8% by 180mg caffeine. The effects of caffeine on motor coordination are dose dependent. A single cup of coffee slightly accelerates the performance of an exercise of manual dexterity and writing velocity, but beyond 180mg caffeine coordination declines. Tasks requiring a firm hand are demonstrably negatively affected by sometimes even a single cup of coffee. No direct effect on intelligence has been noted but mathematical problems are solved faster 1 hour after drinking 1 to 2 cups of coffee. Both motor dexterity and mental alert-

ness are demonstrably heightened by coffee in a state of fatigue. Doses of 120 to 450mg caffeine reduce tiredness, distraction, and somnolence. In this case the action mechanism may be attributable to intervention of caffeine into metabolic factors responsible for fatigue like pH or extracellular liquids, glycogenolysis, production of metabolites, as well as through intervening systems such as cerebral circulation. An antidepressive effect on mood can be noted 1 hour after the intake of 200mg caffeine. Experiments have demonstrated partial antagonism of caffeine toward some effects of a typical pharmacological model like reserprine. 29 references.

150789 Selby, George. North Shore Medical Centre, 66-80 Pacific Highway, St. Leonards, N.S.W., 2065, Australia Levodopa in Parkinson's disease -- Australian collaborative trial. **Medical Journal of Australia (Sydney). 1(12):577-585, 1973.**

The therapeutic effects and adverse side reactions of levodopa in Parkinson's disease were investigated by 19 neurologists in four Australian states in a collaborative study. The trial comprised 216 patients who were treated with levodopa for periods between 5 and 15 months. Clinical observations, recorded at regular intervals, listed the degree of severity of 12 specific disabilities of Parkinson's syndrome, the patients intellect and mood, and the effect of the disease on his daily activities. The results revealed an overall improvement in 88% of the patients (34% marked, 36% moderate, 18% slight). The duration of the disease did not influence the outcome of the treatment; increasing age had a slight adverse effect, and patients who had a previous thalamotomy seemed to fare better. Of the adverse side-effects, nausea and vomiting could often be prevented by gradual increments in dosage, whereas drug induced involuntary movements, which occurred in 51% of the cases, usually demanded a dose reduction. No significant changes were found in EEGs, and no adverse effects were seen on the bone marrow or liver and kidneys. 8 references. (Author abstract modified)

150796 Stancer, Harvey C. Clarke Inst. of Psychiatry, Toronto, Ontario, Canada Lithium therapy in psychiatry. **Canadian Medical Association Journal (Toronto). 108(6):673-674, 1973.**

A brief review of lithium therapy is presented beginning with Cade's discovery (1949) of the sedative properties of lithium salts in laboratory animals. The lithium salt, Westsal, was put on the market in the USA without adequate testing, for cardiac patients who were on low salt diets; several deaths occurred before the material was withdrawn. Much of the basic pharmacology of the lithium ion was worked out in Denmark by Schou and his associates and resulted in the conclusions that this treatment was effective in the treatment of mania and helped to prevent recurrence of manic-depressive disorders. A number of studies have since appeared either supporting or questioning the use of lithium for depression. In a study by the NIMH, the results suggested that while lithium was slightly better for the mildly disturbed patient, chlorpromazine was better for the more severely disturbed patient. Further investigation is needed to determine the types of patients for whom lithium therapy is most effective. 10 references.

151991 Adam, Nilly. P. O. Box 4563, Philadelphia, PA 19131 Effects of general anesthetics on memory functions in man. **Journal of Comparative and Physiological Psychology. 83(2):294-305, 1973.**

Jacksonian concepts (implying that anesthetics first obliterate more recently developed functions) were applied to interpreting the effects of low concentrations of anesthetics on mnemonic functions in young male humans. Accordingly, there should be concentrations at which anesthetics affect verbal memory, sparing nonverbal visual memory, and subjects should show more acoustic than semantic confusions in long-term memory. These hypotheses were confirmed in subjects inhaling very low anesthetic concentrations and in subjects recovering from inhalation of high anesthetic concentrations. Nonverbal acoustic memory was also impaired, but not as much as verbal memory. At relatively higher concentrations, the long-term registration of verbal material was abolished, leaving only short-term capacities. The data also provide independent evidence for the separation of verbal and nonverbal memory and for the acoustic processing of visually presented verbal material. 25 references. (Author abstract)

152074 Brunia, C. H. M. Department of Psychology, Tilburg University, The Netherlands The influence of methamphetamine and diazepam on the The influence of methamphetamine and diazepam on the amplitude changes of the Achilles tendon and Hoffmann reflex during a mental task. **Physiology & Behavior. 8(6):1025-1028, 1972.**

Twenty four subjects took part in an experiment in which the level of arousal with drugs was changed to see if the same task, in another state of arousal, causes another effect. In previous experiments, in which Achilles tendon (TR) and Hoffmann reflexes (HR) have been evoked simultaneously during task and at rest, an increase of TR amplitudes during task has been found. In the course of the 20 minutes of task performance a decrease of the larger TR amplitudes has been found. The difference between rest and task does not have a constant value, but changes in time, presumably because the state of arousal changes. Using some other tasks, Bathien mentioned an augmentation of TR and HR amplitudes. In this experiment in which rest and task periods were alternated, subjects were injected intravenously with methamphetamine, diazepam, and saline in a randomized succession. After a stimulant (methamphetamine), smaller rest - task differences of TR amplitudes are seen. After a depressant (diazepam), larger differences of TR are seen, in combination with a facilitation of HR amplitudes. HR and TR amplitudes are influenced equally strongly by methamphetamine and diazepam which points to an influence of these drugs on the alpha motoneurone rather than on the fusimotor neurone system. 10 references. (Author abstract modified)

152715 Zalcman, Steven; Liskow, Barry; Cadoret, Remi; Goodwin, Donald. Washington Univ. School of Medicine, 4940 Audubon Ave., St. Louis, MO 63110 Marijuana and amphetamine: the question of interaction. **American Journal of Psychiatry. 130(6-7):707-708, 1973.**

The interaction effects of marihuana and amphetamine were examined on a variety of physiologic and psychological measures. Marijuana resulted in tachycardia and conjunctival injection, while amphetamine increased blood pressure and the respiratory rate. Pupil size was unaffected by either agent, and there was a lack of evidence for drug interaction. With regard to drug interaction, the only hint of this concerned the time required for completion of the Number Faciliy test. Amphetamine improved performance, marijuana worsened it, and the combination resulted in an intermediate score with amphetamine improvement predominating. 8 references. (Journal abstract modified)

152875 Haghshenass, M.; Rao, Dodda B. Pahlavi University, Shiraz, Iran Serum folate levels during anticonvulsant therapy with diphenylhydantoin. **Journal of the American Geriatrics Society. 21(6):275-277, 1973.**

An evaluation of serum folate, iron, total iron binding capacity and a hemogram was undertaken in 27 patients with seizure disorders who were treated with diphenylhydantoin (DPH). The dietary intakes of iron, folic acid and vitamin C were adequate, but the serum folate level was extremely low in most of the DPH patients, particularly those aged 60 or older. No macrocytosis was observed during the three month study period. 13 references. (Author abstract modified)

153054 Gilbert, Jeanne G.; Donnelly, Kevin J.; Zimmer, Louis E.; Kubis, Joseph F. Mt. Carmel Guild, Newark, NJ Effect of magnesium pemoline and methylphenidate on memory improvement and mood in normal aging subjects. **International Journal of Aging and Human Development. 4(1):35-51, 1973.**

The effects of magnesium pemoline (Cylert) and methylphenidate (Ritalin) on the memory and mood of normal aging persons were examined. Seventy eight subjects, aged 60 and over, were randomly assigned in double-blind fashion to one of the two drug conditions or to a placebo. Subjects were administered the WAIS vocabulary subtest, the Guild Memory Test, and a mood scale at the beginning of the study and the mood scale and alternate forms of the memory test in the middle and at the end of the experiment. Results showed no differntial drug effects between the three groups on any of the six memory functions measured or between subgroups of differing intellectual levels. There were, however, tentative indications that Cylert increased depression and worrisomeness and that Ritalin reduced fatigue. No physical side effects or significant changes in laboratory examinations were found on all but two subjects. These two individuals, apparently hypersensitive to Cylert, showed hepatic toxicity, but the resultant elevations on some tests quickly subsided when the drug was withdrawn. 55 references. (Author abstract modified)

153108 Darley, C. F.; Tinklenberg, J. R.; Hollister, T. E.; Atkinson, R. C. Department of Psychology, Stanford University, Stanford, CA 94305 Marihuana and retrieval from short-term memory. **Psychopharmacologia (Berlin). 29(3):231-238, 1973.**

The effect of marihuana on retrieval from short-term memory was studied. Ss received an oral dose of marihuana extract calibrated to 20mg of delta-1-tetrahydrocannabinol on day 7 of the experiment and performed a short-term memory task before and after administration of the drug. The Ss were then split into two groups, receiving marihuana or placebo on the evening of days 7 to 4 and between two memory test sessions on day 5. Placebo Ss showed little change in performance between the two test sessions on day 5. Results from day 1 for all Ss and day 5 for the drug group showed that reaction time increased from before and after challenge sessions. This increase in time under marihuana was explained as a change in encoding and/or response processes rather than processes in the search of the memory store. 8 references. (Author abstract)

153197 Williams, J. G. L.; Jones, J. R.; Williams, B. University of Nebraska Medical Center, Lincoln, NB Measurement and control of preoperative anxiety. **Psychophysiology. 10(2):200, 1973.**

At the twelfth annual meeting of the Society for Psychophysiological Research, a study of the measurement and control of preoperative anxiety which causes the patient to be in a markedly less than optimal physiological state at operation and throughout and beyond the operative period was reported. The Skin Conductance Anxiety Test (SCAT), defined as the amount of slowly infused thiopental sodium calculated as mg/cm of patient height which was needed to abolish the patient's spontaneous galvanic skin responses, was used as a measure of anxiety. Both chemical (diazepam) and psychological (preoperative interview) methods of controlling preoperative anxiety were compared. Analysis of the SCAT scores showed that both these methods differentially affected patients according to their degree of anxiety, are complementary to each other, and make it possible to eliminate the excessive amounts of thiopental sodium typically required for the induction of highly anxious patients. (Author abstract modified)

153267 Chute, Douglas L.; Wright, Dennis C. Department of Psychology and Space Sciences Research Center, University of Missouri, Columbia, MO 65201 Retrograde state dependent learning. **Science. 180(4088):878-880, 1973.**

Sodium pentobarbital administered intravenously after acquisition in a one trial passive avoidance task resulted in state dependent (drug dissociated) learning in male albino rats. Findings have methodological implications for drug based research and theoretical implications for drug discrimination studies. Predictions based on a stimulus generalization hypothesis are not supported, whereas those based on an information storage hypothesis are supported. 5 references. (Author abstract)

154739 Conners, C. Keith; Rothschild, Gerard H. Child Development Laboratory, Massachusetts General Hospital, Boston, MA 02114 The effect of dextroamphetamine on habituation of peripheral vascular response in children. **Journal of Abnormal Child Psychology. 1(1):16-25, 1973.**

The effect of dextroamphetamine on habituation of peripheral vascular response in children was studied. The blood volume pulse (BVP) measured by a photoplethysmograph was recorded in 43 children with behavior and learning problems before and after either stimulant drug treatment or placebo. A series of 24 750cps tones was presented at 10 second intervals, with one trial having a doubled interval and one with a halved interval. A 1000cps tone was introduced following the final trial. As predicted, the drug treated Ss showed significantly more rapid habituation to the tones. They also showed more variability of BVP following the longer intertrial interval, but showed less variability following the introduction of the high tone. The results are interpreted as showing that the stimulant has the effect of raising autonomic arousal level with consequently more rapid habituation of the orienting response. 26 references. (Author abstract)

155089 Rosen David H. Langley Porter Neuropsychiatric Institute, San Francisco, CA 94122 Acute parotitis associated with depression and psychoactive drug therapy. **Comprehensive Psychiatry. 14(2):183-188, 1973.**

The etiologic significance of severe depression and its vegetative components and the use of psychoactive drugs in the increased incidence of acute parotitis since the late 1950's is discussed using two case histories. If acute parotitis does develop it warrants prompt evaluation and treatment, including obtaining: culture of the paratoid duct exudate and immediate medical and surgical consultation. 27 references.

155275 Hermann, W. M. Research Fellow, Missouri Institute of Psychiatry, University of Missouri, Columbia, St. Louis, MO Four new drug

developments from Denmark, Russia, and West Germany. **Psychopharmacology Bulletin. 9(3):49-50, 1973.**

Four new drugs being developed in Denmark, Russia, and West Germany are listed. The drugs are listed with a discussion of their properties and effects and include: 1) NSD 3004 from Denmark; 2) Karbidine and Ftorazine from Russia; and 3) Cyproterone acetate from West Germany.

155841 Milner, Gerald; Landauer, Ali A. Commonwealth Department of Health, Canberra, Australia The effects of doxepin, alone and together with alcohol, in relation to driving safety. **Medical Journal of Australia (Sydney). 1(17):837-841, 1973.**

The antidepressant antianxiety compound doxepin and its effects on skills related to driving safety when used in conjunction with alcohol is studied by testing 34 students randomly assigned to one of three groups. The students were tested when sober and also when intoxicated by alcohol. The only significant drug effect was an improvement in performance on one driving simulator by the subjects on the higher dose of doxepin, indicating that the antianxiety effects of doxepin were to some extent antagonistic to the detrimental effect of alochol on motor skills. 16 references. (Author abstract modified)

156075 Nakano, Kenneth K.; Zubick, Howard; Tyler, H. Richard. Peter Bent Brigham Hospital, Boston, MA 02115 Speech defects of parkinsonian patients: effects of levodopa therapy on speech intelligibility. **Neurology. 23(8):865-870, 1973.**

Effects of levodopa therapy on speech defects in parkinsonian patients are studied. Various forms of therapy including levodopa were evaluated in a double-blind crossover manner. Levodopa was superior to placebo and a commonly used antiparkinsonian drug (procyclidine hydrochloride) in improving speech intelligibility. Labial movement tracings showed that this improvement was mainly the result of a shorter latency between initiation of labial movement and speech and increased speed and symmetry of labial activity. Oral exercises showed that levodopa caused enhanced labial motility at the corners and lower part of the mouth. The general improvement in bradykinesia and rigidity derived from levodopa therapy may also influence the improvement in the articulation of a parkinsonian patient. 8 references. (Author abstract)

157150 Ague, C. Sandoz Ltd., Medical Research Department, Basel, Switzerland Nicotine and smoking: effects upon subjective changes in mood. **Psychopharmacologia (Berlin). 30(4):323-328, 1973.**

A Mood Adjective Check List (MACL) and an activation scale were used to measure subjective reports on mood changes in 24-male habitual smokers before and after smoking cigarettes with known content of nicotine, at different times of day and rates of puffing. Ratings on pleasantness were dose related. Aggression and anxiety showed effects attributable to circadian influence and slight decreases in both factors occurred after smoking the highest nicotine cigarette. The MACL scores were greatly affected by the experimental procedure. Levels of inner tension were found related to the nicotine inhaled. The heuristic value of the concept of activation in these studies is suggested. 9 references. (Author abstract)

157153 Rickles, William H., Jr.; Cohen, Michael J.; Whitaker, Charlotte A.; McIntyre, Keren E. Department of Psychiatry, UCLA School of Medicine, Los Angeles, CA 90024 Marijuana induced state-dependent verbal learning. **Psychopharmacologia (Berlin). 30(4):349-354, 1973.**

In a study of marihuana induced verbal learning, human, male subjects from our light marihuana usage category were given paired associate learning under either placebo or marihuana intoxication. A 2 x 2 experimental design was used to test for dissociation effects. Marihuana intoxicated subjects needed significantly more trials to reach criterion learning than subjects under placebo. Testing of recall, 10 days later, demonstrated a significant state dependent effect. The results were discussed in terms of state dependent theory and the effects of central nervous system active drugs on learning models. 18 references. (Author abstract)

157343 Wilson, Ian C.; Prange, Arthur J., Jr.; Lara, Patricio P.; Alltop, Lacoe B.; Stikeleather, Rachel A.; Lipton, Morris A. North Carolina Health Department, Division of Research, Raleigh, NC THR (lopremone): psychobiological responses of normal women. I. Subjective experiences. **Archives of General Psychiatry. 29(1):15-21, 1973.**

Ten normal women were injected intravenously with lopremone (thyrotropin releasing hormone)

and saline given one to four weeks apart in a double blind study. After saline, somatic symptoms and mental changes were negligible. After lopremone, subjects experienced a variety of somatic symptoms, usually within a few minutes of injection. Later they experienced relaxation, mild euphoria, and a sense of increased energy. Since correlation analyses show that intensity of euphoria is not related to frequency of side effects and is negatively related to magnitude of thyrotropin (thyroid stimulating hormone) response, euphoria presumably does not arise solely from suggestion or from thryoid stimulation. 20 references. (Author abstract)

157496 Castaldo, Vincenzo; Krynicki, Victor E.; Crade, Michael. Department of Psychiatry, Albany Medical College of Union University, Albany, NY L-dopa and REM sleep in normal and mentally retarded subjects. **Biological Psychiatry. 6(3):295-299, 1973.**

The effect of small doses of L-dopa on the amount of REM sleep and the density of eye movements during REM sleep in normal and mentally retarded individuals is investigated. Fourteen normal subjects slept in the laboratory for 5 nights. Five subjects received 500mg of L-dopa on the fourth night, and a placebo on the fifth night; this order was reversed for five other subjects. Two subjects received 200mg of L-dopa on the fourth night, and a placebo the next night; this order was reversed for two other subjects. The mentally retarded subjects received a placebo for three nights and then 125mg of L-dopa for 3 nights. In normal subjects 200mg of L-dopa increased the length of the first REM period. In mentally retarded subjects, who ordinarily have less REM sleep, this variable was increased on the first night and eye movement density was consistently increased. 12 references.

158121 Dembicki, Eugene L. no address Long action tranquilizer. **Journal of Psychiatric Nursing and Mental Health Services. 11(3):39-41, 1973.**

The characteristics of Prolixin Decanoate, a long-acting tranquilizer for psychotic patients being introduced by Squibb are discussed. A single injection at 1 to 3 week intervals relieves schizophrenic symptoms such as agitation, hostility, and anxiety for 2 weeks in most patients. The patient becomes more cooperative, less withdrawn, more responsive to social situations, and more subject to therapy. The extended duration of action puts the patient's medication regimen firmly under the physician's control, and may allow the transferral of many chronically psychotic patients to outpatient status. Extrapyramidal reactions can usually be controlled with antiparkinsonian drugs. Contraindications are identified for certain conditions and the drug is not intended for use of children under 12. Warnings, precautions, and adverse reactions are discussed.

158175 Sroufe, L. Alan; Stewart, Mark A. Institute of Child Development, University of Minnesota, Minneapolis, MN 55455 Treating problem children with stimulant drugs. **New England Journal of Medicine. 289(8):407-413, 1973.**

The practice of treating problem children with stimulant drugs is evaluated from biological, behavioral, and ethical points of view. Although some studies have reported that problem children have an atypical response to stimulant drugs (implying abnormal functioning of the brain), it is asserted that, for normal children, problem children, and adults, stimulant drugs improve performance on repetitive, routinized tasks that require sustained attention and reasoning, whereas problem solving and learning are not affected. The problems subsumed by the definition of minimal brain dysfunction include hyperactivity, distractibility, incoordination, short attention span, underachievement and perceptual difficulties. These behaviors have not been shown to intercorrelate, thus drug treatment would not, in many cases, be biologically warranted -- especially when long-term drug effects are often unknown. Psychologically, it is preferable that children learn to deal with their particular problems with the assistance of their teachers and parents. 77 references.

158283 Rushton, Ruth; Steinberg, Hannah; Tomkiewicz, M. Dept. of Pharmacology, Univ. College London, Gower St., London WC1E 6BT, England Effects of chlordiazepoxide alone and in combination with amphetamine on animal and human behavior. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 355-366).**

The effects of chlordiazepoxide (CDP) alone and in combination with amphetamine on behavior was investigated in man and in animals. In rats, the following observations were made: amobarbital and CDP stimulated activity in moderate doses and were capable of interacting with dexamphetamine (DAMP) producing high

levels of activity; a wider range of doses of CDP was needed than with amobarbital before activity was abolished; a range of doses of CDP induced a marked initial hyperactivity followed quickly by an abrupt switch to immobility, which could be prevented by doses of DAMP together with the CDP. In mice tested with a hole board, neither DAMP nor CDP produced much effect on head dipping when used alone but the mixture resulted in a twofold increase in the number of head dips. Dose response curves were obtained. In human Ss, CDP alone impaired performance in simple tasks while the combination of DAMP and CDP improved performance during testing. Improvement was maintained for 3 hours. 27 references.

158284 Hollister, Leo E. Sanford Univ. School of Medicine, Sanford, CA 94305 Antianxiety drugs in clinical practice. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 367-377).**

The use of antianxiety drugs in clinical practive is examined. It is felt that the drugs are used widely but not well and that the drugs with sedative hypnotic properties are preferred. The clinical use of antianxiety drugs should be predicated on their being adjunctive treatment, on the fluctuating natural course of anxiety, on the individual dose needs of patients, on a dosage schedule designed to maximize symptomatic relief and to minimize daytime oversedation and on their possible use in the common depressive syndromes accompanied primarily by anxiety. Benzodiazepines are considered to be the most efficacious and the safest of the agents available. 22 references. (Author abstract modified)

158285 Cassano, G. B.; Castrogiovanni, P.; Conti, L. Istituto di Clinica Psichiatrica, Universita di Pisa, 56100 Pisa, Italy Drug responses in different anxiety states under benzodiazepine treatment. Some multivariate analyses for the evaluation of 'Rating Scale for Depression' scores. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 379-390).**

The Rating Scale for Depression scores of 536 depressed (D) or neurotic (N) inpatients was used for multivariate statistical analysis. Different treatments such as antipsychotics and antidepressants were compared to the effects of benzodiazepines (BDP) in the sample. On N and D patients the BDP effects could be differentiated from that of antipsychotic drugs since the former relieved anxiety and was better tolerated. In contrast to antidepressant drugs BDPs did not show significant effect on motor retardation and induced moderate improvement in depressive symptomatology. Antianxiety drugs seemed to exert therapeutic effect constantly and independently of differences in age, both in D and N patients. According to the multiple regression analysis of the anxious patients, a better response may be expected when guilt feelings, loss of work capacity and suicide ideas are present. 12 references. (Author abstract modified)

158286 Rickels, Karl. Psychopharmacology Research Unit, Dept. of Psychiatry, Univ. of Pennsylvania, Philadelphia, PA 19104 Predictors of response to benzodiazepines in anxious outpatients. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 391-404).**

Predictors of response to benzodiazepines in anxious outpatients was examined by step search multiple regression analyses. With regard to general predictors of improvement irrespective of the treatment agent, good response has been predicted with more favorable prognosis, higher income or education, the drug considered as the most suitable treatment, the patient's realizing that his problems are emotional and having received fewer previous drugs. Greater improvement with chlordiazepoxide (CDP) or diazepam (DP) than with placebo was observed for more time spent with patient, being of Caucasian race, general practice as the treatment setting, longer duration of illness and higher initial depression. Better response to CDP or DP than to sedating agents was predicted for being employed. Greater improvements have been predicted with CDP for higher levels of initial depression, hostility and hypochondrias, and with DP for higher levels of somatization. 18 references. (Author abstract modified)

158299 Kales, Anthony; Scharf, Martin B. Dept of Psychiatry, College of Medicine, Pennsylvania State Univ., M. S. Hershey Medical Center, Hershey, PA 17033 Sleep laboratory and clinical studies of the effects of benzodiazepines on sleep: flurazepam, diazepam, chlordiazepoxide, and RO 5-4200. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 577-598).**

The effects of four benzodiazepines -- flurazepam (FP), diazepam (DP), chlordiazepoxide (CDP) and RO 5-4200 -- on sleep was investigated. Clincal doses of the drugs produce little change in

rapid eye movement (REM) sleep either with drug administration or drug withdrawal. Even with an increase in dosage drug withdrawal does not result in an increase in REM sleep above baseline, only a return to the prior baseline levels. Administration of FP resulted in a decrease in eye movement density and a return to normal levels after drug withdrawal. The four drugs also produced moderate to very marked decreases in stage four sleep which were more pronounced with FP and DP. All drugs produced an increase in electroencephalogram (EEG) activity which was more noticible in REM sleep and stages one and two. The increase in fast EEG activity was more marked with FP and DP. All drugs produced improvements in sleep induction and maintenance. 20 references. (Author abstract modified)

158300 Dement, William C.; Zarcone, Vincent P.; Hoddes, Eric; Smythe, Harvey; Carskadon, Mary. Dept. of Psychiatry, Stanford Univ. School of Medicine, Stanford, CA 94305 Sleep laboratory and clinical studies with flurazepam. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 599-611).**

A report of drug evaluation work with benzodiazepines consisting of two systematic sleep laboratory studies of flurazepam (FD) or Dalmane and some clinical observations on insomniac patients is presented. FD is an effective hypnotic in inducing and maintaining sleep. The drug significantly reduces slow-wave sleep but does not have a profoundly suppressive effect on rapid eye movement sleep. There appears to be a carry over of effectiveness from one night to the next and continues for one night after medication is withdrawn. The carry over is not reflected in daytime drug hangover. Both 15 and 30mg doses were equally effective. It is felt that all night sleep recordings should be obtained from patients who complain of insomnia before chronic sleeping medication is prescribed. Often there is not sufficient sleep loss to justify medication treatment. In most cases of insomnia FD is an effective drug of choice. 29 references. (Author abstract modified)

158301 Marino, Adriano. Instituto di Farmacologia, Universita di Bari, 70100 Bari, Italy Behavioral and psychosomatic effects of benzodiazepines: interactions with other drugs. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 631-639).**

The behavioral and psychosomatic effects of benzodiazepines (BDP) were explored. In an experimental and clinical approach to the evaluation of somatic, somatopsychic and psychosomatic effects of psychotropic drugs, BDPs combined with other psychotropic or somatotropic drugs afforded protection against experimental and clinical psychogenic somatopathies. Protection against the organotoxicity of various drugs was shown in experimental animals when potentiated by psychostress. The BDPs as compared to other drugs have been shown to be the most active in the potentiation of the head drop induced by d-tubocurarine in the rabbit. In clinical research, chlordiazepoxide combined with amitriptyline proved to be useful in the treatment of the somatic and psychic components of psychosomatic disease such as anorexia nervosa, spastic gastroenteric disorders and essential hypertension. Results and clinical implications are discussed with a view to a rational application of BDPs in psychiatry, internal medicine and anesthesiology. 32 references. (Author abstract modified)

158303 Breckenridge, A.; Orme, M. Dept. of Medicine, Royal Postgraduate Medical School, Hammersmith Hospital, London W. 12, England Interaction of benzodiazepines with oral anticoagulants. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 647-654).**

Three benzodiazepines, nitrazepam (NP), diazepam (DP) and chlordiazepoxide (CDP) were investigated in humans for their ability to stimulate the activity of hepatic drug metabolizing enzymes. None of the drugs produced a consistent fall in steady state plasma warfarin concentration, a change in anticoagulant control or a change in plasma warfarin half-life. In the rat, CDP significantly shortened the pentobarbital sleeping time, the plasma half-life of 14C-pentobarbital and the duration of paralysis produced by zoxazolamine. It also increased the Vmax of ethylmorphine N-demethylation by isolated rat liver microsomes. Neither NP nor DP given in a similar dose produced these changes. 8 references. (Author abstract)

159067 Kari, Ahmad. Department of Neurology and Psychiatry, Henry Ford Hospital, Detroit, MI Thioridazine: alleviation of the mixed anxiety-depressive psychoneurotic state. **Behavioral Neuropsychiatry. 4(9-10):13-15, 1973.**

The response of 23 outpatients with mixed anxiety-depressive psychoneurotic states to treatment with thioridazine was evaluated by weekly change in 17-symptoms and 6 composites selected from

the Wittenborn Psychiatric Rating Scales. A global rating was also used to assess each patient's mental status before and during the study, and an overall change rating to determine the extent of change after initiation of treatment. Although the greatest therapeutic effect occurred in symptoms of anxiety and depression, several concomitant symptoms of the mixed state also significantly improved. Thioridazine appeared to be an effective treatment for the broad spectrum of symptoms in the mixed anxiety - depressive symptoms complex. 10 references. (Author abstract modified)

159130 Paxton, Patricia Wynn Sullivan. University of Minnesota, Minneapolis, MN 55455 Effects of drug-induced behavior changes in hyperactive children on maternal attitude and personality. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 72-20136 HC$10.00 MF$4.00 239 p.**

The problem of causality was investigated by seeking to demonstrate maternal changes on selected attitude and personality measures in response to drug-induced changes in the child's behavior. A triple-blind drug research program studying the effects of three drugs and a placebo on the behavior of hyperactive children was utilized in the study. The findings suggest that when improvement in the child involved a lessening of such psychiatric symptoms as withdrawal and depression, the mother may react with lessened psychiatric pathology of her own. No consistent reactive changes in childrearing attitudes were found. The most significant findings involved unpredicted small, but significantly consistent differences between mothers of improved and unimproved children in childrearing attitudes at pretreatment and over time. Overall, the findings suggest that certain childrearing environments may facilitate the therapeutic effects of drug treatment. If the child improves in terms of social-emotional symptoms, the mother may respond with decreased emotional symptomology of her own. (Journal abstract modified)

159345 Mohr, John A.; Wilson, J. David. Dept. of Medicine, Microbiology and Immunology, Univ. of Oklahoma College of Medicine, 921 N. E. 13th St., Oklahoma City, OK 73104 Psychosis with chronic brucellosis. **Journal of the Oklahoma State Medical Association. 66(7):319-321, 1973.**

The case report of a man who had chronic brucellosis and presented symptoms of psychosis is reported. After infection, the patient spent four years with depressive episodes, night sweats, intermittent low grade fever, decreased hearing and marked tinnitus, pains in the mouth, nose, face and all of his joints, intermittant diarrhea, constipation, poor appetite, nausea, vomiting and sleep disorders. Treatment with peroral tetracycline and streptomycin and complete recovery is described. Four different types of the disease and the difficulties encountered in diagnosis are described. 6 references.

159895 Maskin, Michael B. Fordham University Psychological aspects of 'short-term' versus 'long-term' L-Dopa therapy in Parkinsonism. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-16024 HC$10.00 MF$4.00 101 p.**

The short and long-range effects on behavior of L-Dopa treatment for Parkinsonism were investigated, defining short-term as 18 months or less and long-term as 24 months or more. A third, control group, of normal Ss was also used. All Ss were tested with the D scales of the MMPI, and MAACL, the K scale of the MMPI, and the Critical Flicker Fusion Test. All medical records for the L-Dopa Ss were also available. Results substantiate the belief that the initial psychological improvement of the patient in short-term treatment does not continue after a period of approximately 2 years. A subtle deterioration in psychological functioning appears to begin at this time, and probably has roots in the chemical toxicity in altered brain catecholamine states which have been noted in long-term therapy with the drug. This worsening of certain behavioral aspects, particularly increased depression and lowered activation when compared to the short-term group, may also be attributed to psychological reasons. These include frustration at lack of improvement after dramatic progress and insight and realization that L-Dopa can only offer limited help in the course of a progressive, degenerative disease. (Journal abstract modified)

160215 Edelstein, E.L.; Isac, M.; Stein, J. Department of Psychiatry, Hadassah University Hospital and Medical School, Jerusalem, Israel How antagonistic can doctor's bias be on drug effect? Oxazepam as an anti-anxiety agent. **International Pharmacopsychiatry (Basel). 8(1-2):27-36, 1973.**

Twenty three neurotic outpatients were examined and their symptoms evaluated by both

their own and the doctor's questionnaires in a study of how antagonistic a doctor's bias might be on drug effect. Strict outpatient clinic routine was kept. Estimation was done on the patient's expectations, motivations for treatment, as well as the doctor's evaluation of the patient's feelings and the doctor's own feelings towards the patient. Results pointed to a good improvement rate in the lessening of anxiety and somatic concern by oxazepam. No antagonistic influence on drug effect by motivational factors or feelings of the therapist could be detected. 12 references. (Author abstract)

160217 Goldberg, J.; Gardos, G.; Cole, J. O. Boston State Hospital, 591 Morton Street, Boston, MA 02124 A controlled evaluation of pyrovalerone in chronically fatigued volunteers. **International Pharmacopsychiatry (Basel). 8(1-2):60-69, 1973.**

In an evaluation of pyrovalerone in chronically fatigued volunteers, ten menopausal Ss received two doses of pyrovalerone and a placebo in a double-blind, multiple crossover design. No significant drug - placebo differences were obtained, but the second administration of the drug at 20mg TID was the most effective drug condition, producing significant improvement on the Psychiatric Outpatient Mood Scale factors of fatigue, confusion, and tension, anxiety, and significant weight reduction. The higher dose (40mg TID) also reduced weight and confusion, but produced many side-effects. Optimal dose appears to be 60mg daily. The absence of hypertensive effect may offer a special indication for use in obese hypertensive patients who tolerate amphetamine poorly. 21 references. (Author abstract)

160315 Mormont, C. no address /Psychometric tests and clinical experimentation in psychiatry./ Tests psychometriques et experimentation clinique en psychiatrie. **Feuillets Psychiatriques de Liege (Liege). 5(3):317-324, 1972.**

Tests and results of psychopharmacological experimentation with psychotropic drugs are analyzed. Tests were made on normal individuals when drug evaluation was for normal behavior, but were made on patients under treatment when the desired effect was transformation of the symtomatology. Drugs used were tranquilizers, which attack symptoms, and amphetamines and barbiturates, which do not modify the psyche, but stimulate and inhibit it. An informative table by Latz on performance modification during intellectual tests after drug use is included. Experimentation with new psychotropic drugs and additional psychometric tests are useful and objectively increase results obtained from experimental products.

160477 Gottschalk, Louis A.; Noble, Ernest P.; Stolzoff, Gordon E.; Bates, Daniel E.; Cable, Claire G.; Uliana, Regina L.; Birch, Herman; Fleming, Eugene W. Dept. of Psychology and Human Behavior, California College of Medicine, Univ. of California, Irvine, CA 92664 Relationships of chlordiazepoxide blood levels to psychological and biochemical responses. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 257-280).**

A double-blind study of the effects on several psychological states and on a variety of biochemical substances in the blood including chlordiazepoxide (CDP) blood levels was made after a single oral dose of CDP was given to 18 anxious Ss. Anxiety, hostility, outward and ambivalent hostility scores tended to decrease over a 50 m in observation period. CDP blood levels correlated with scores on anxiety, ambivalent hostility, achievement strivings, average blood free fatty acids, average triglycerides, glucose and creatinine. CDP elevated plasma free fatty acids and triglycerides when compared to placebo but had no effect on glucose. The significant negative correlation of blood insulin levels with blood glucose, when the same Ss were on placebo, were blocked when the Ss were administered CDP. A series of correlations between various psychological states and biochemical variables in the blood under placebo conditions were reversed when Ss were on CDP. 48 references. (Author abstract modified)

160694 Sarma, P. S. B.; Falk, Marshall A. Department of Psychiatry, Chicago Medical School, University of Health Sciences, Chicago, IL Drug treatment of hyperactivity in children. **Illinois Medical Journal. 144(2):117-119, 156, 1973.**

The syndrome of the hyperactive child is discussed in terms of difficulties in diagnosis and treatment. Recent literature relating to treatment is reviewed. Evaluation of the three major drugs of choice, dextroamphetamine, methylphenidate, and imipramine, suggests that imipramine may be the most effective. 30 references. (Author abstract modified)

160975 Hewitt, A. Boulton; Knapman, W. B.; Lawson, June. Royal Northern Hospital, London, England Ejaculatio praecox: treatment with the 'mini-pill'. **World Medicine (London). 8(24):37-42, 1973.**

The postulate that using a mild anti androgen might produce a sedative effect, which would delay emission until a patient with ejaculatio praecox could keep a satisfactory erection is tested. A clinical trial was conducted on a series of 50 patients, giving them short-term medication with chlormadinone acetate, a steroid demonstrated by Dr. Ralph Dorfman to be anti androgenic. After treatment, 30 of the 50 patients responded benefically to some degree. It is concluded that the drug seems to be effective, but one cannot present any firm guidelines for treatment, nor determine how long it should be continued to get the best results. 3 references. (Author abstract modified)

161049 Christensen, Donald E.; Sprague, Robert L. Children's Research Center, Univ. of Illinois, Champaign, IL 61820 Reduction of hyperactive behavior by conditioning procedures alone and combined with methylphenidate (Ritalin). **Behaviour Research and Therapy. 11(3):331-334, 1973.**

A technique for the reduction of hyperactive behavior in children which combines behavior modification and pharmacotherapy was studied. Twelve subjects selected from three special education classes were divided into two groups: a drug group and a placebo group. The treatment was aimed at the reduction of seat activity as measured by stabilimetric cushions. Medication consisted of methylphenidate (0.30mg/kg). It was found that seat activity was reduced in both groups by the application of contingent reinforcement. However, the subjects who also received methylphenidate displayed rates of movement which were consistently lower than the placebo group. 17 references.

161281 Pichot, P.; Serdaru, M. Clinique des Maladies Mentales et de L'Encephale, 100, rue de la Sante, 75014 Paris, France /Psychopharmacology of sleep./ Psychopharmacologie du sommeil. **Encephale (Paris). 61(4):350-390, 1972.**

Psychopharmacological research of sleep is described. Barbiturates and other soporifics, tranquilizers, antidepressants, neuroleptics, and hallucinogens are discussed. The term paradoxical sleep is used to indicate rapid cortical activity, abolition of muscular tonus, and rapid eye movements during sleep. Slow sleep indicates slow cortical activity. Methods included direct observation and polygraphic recording. Drug dosages are discussed. It is unknown if natural sleep is more healthy than sleep induced by drugs. Other studies have shown that all soporifics can disturb paradoxical sleep, and that the duration of the efficacy of a soporific on the prolongation of stage three is not uniform. Effects of a number of soporifics, tranquilizers, synaptic modifers, L and alpha-methyl-dopa, parachlorphenylalanine, gamma aminobutyric acid, probenecide and tryptophane are described.

161391 Mendels, J.; Chernik, D. A. Depression Research Unit, Department of Psychiatry, VA Hospital, Philadelphia, PA 19104 The effect of lithium carbonate on the sleep of depressed patients. **International Pharmacopsychiatry (Basel). 8(3):184-192, 1973.**

Effects of lithium carbonate on the sleep of depressed patients were studied. Five depressed patients were studied for 113 drug free nights and 150 nights while receiving lithium in the sleep laboratory. There was a significant decrease in delta-wave sleep and a significant increase in stage one REM sleep. There was a significant decrease in the mean REM percentage (the percentage of stage one REM in relation to actual sleep time, along with an increase in the latency to the first REM period of the night. There was a significant increase in mean delta sleep (stages three and four) percent. This effect is compared with that of tryptophan on sleep and consideration is given to the possible role of biogenic amines in the mediation of these changes. 40 references. (Author abstract modified)

161581 Tupin, Joe P.; Smith, David B.; Clanon, T. L.; Kim, L. I.: Nugent, A.; Groupe, A. Dept. of Psychiatry, Univ. of California, Davis School of Medicine, Davis, CA 95616 The long-term use of lithium in aggressive prisoners. **Comprehensive Psychiatry. 14(4):311-317, 1973.**

The long-term use of lithium with 27 aggressive prisoners is reported. Ss were treated for from 3 to 18 months. Characteristics of the population included inability to delay expression of aggressive feelings, strong suggestion of brain damage, and a long history of violent behavior. As a group the average number of disciplinary actions for violent

behavior decreased after treatment whereas the average number of disciplinary actions for nonviolent behavior did not decrease significantly. Individually considered, Ss receives fewer disciplinary actions for violence. Security classifications improved. Subjective reports included: an increased capacity to reflect on the consequences of actions; increased capacity to control angry feelings when provoked; diminised intensity of angry affect; and generally a more reflective mood. 9 references. (Author abstract modified)

161582 Ananth, J. V.; Beszterczey, A. Dept. of Psychiatry, St. Mary's Hospital, Montreal, Canada Treatment of psychosis subsequent to phenothiazine-induced agranulocytosis. **Comprehensive Psychiatry. 14(4):319-323, 1973.**

The treatment of psychosis subsequent to phenothiazine induced agranulocytosis is reported. Most psychiatric patients receive phenothiazine preparations for the amelioration of psychopathological symptoms during which agranulocytosis or granulocytopenia and severe leukopenia are not infrequent. Agranulocytosis must be treated first. Subsequently the psychopathology may be treated by: withdrawal of medication; rechallenging with the same medication with caution; substitution of the same medication with caution; substitutions with another phenothiazine preparation or butyropenone or thioxanthine; and the administration of electroconvulsive treatment. Six case histories are included to show how the particular technique depends on the circumstances and drug history of the individual patient. 12 references. (Author abstract modified)

161596 Singer, Irwin; Rotenberg, Donald. University of Pennsylvania Medical Center, Philadelphia, PA 19104 Mechanisms of lithium action. **New England Journal of Medicine. 289(5):254-260, 1973.**

Two potential roles for lithium are emphasized in the description of the biologic effects of lithium in several medically important physiologic systems. Lithium was found to have effects on many different organ systems, particularly those involved with ion transport and polypeptide hormone action. The reason for this is incomplete ion substitution for other extracellular and intracellular cations, and interference with cAMP - mediated processes that are regulated by polypeptide hormones. The many physiologic effects and mechanisms of action of lithium may not be independent. Lithium is an effective agent in the treatment of mania and may become useful in the management of diseases characterized by excessive hormone activation of adenyl cyclase, such as inappropriate secretion of ADH and thyrotoxicosis. 9 references.

161818 Evenson, Richard C.; Altman, Harold; Sletten, Ivan W.; Cho, Dong Won. Missouri Institute of Psychiatry, 5400 Arsenal St., St. Louis, MO Clinical judgment vs. multivariate formulae in assignment of psychotropic drugs. **Journal of Clinical Psychology. 29(3):332-337, 1973.**

In a study of clinical judgment vs multivariate formulae in assignment of psychotropic drugs, 500 psychiatric ratings that utilized a mental status checklist were collected based on 20 videotaped patient interviews. Drug group assignment (major tranquilizer, minor tranquilizer, and antidepressant) made by clinicians was compared with computer assignments based on multivariate formulae utilizing mental status items as a means to validate formulae derived earlier from prototype data and from videotape data. These comparisons resulted in computer agreement with clinical consensus for assigned drug group that ranged from 67% to 80%. Critical items that discriminated best across groups are discussed, as are implications for further research. 9 references. (Author abstract)

162362 Small, Iver F.; Small, Joyce G.; Milstein, Victor; Sharpley, Patricia. Larue D. Carter Memorial Hosp., Dept. of Psychiatry, Indiana Univ. School of Medicine, Indianapolis, IN Interhemispheric relationships with somatic therapy. **Diseases of the Nervous System. 34(3):170-177, 1973.**

To determine the effects of drug and convulsive therapy on dominant, nondominant, and bilateral hemispheric functions, interhemispheric relationships were examined in neurophysiological, perceptual, and EEG data gathered from psychotic patients before and after different types of somatic treatment. Convulsive therapy was found to be associated with improvement in nonverbal task performance and deterioration on tests of verbal skills. Shifts in particular hemispheric relationships were not found with phenothiazine treatment, while visuospatial functions were affected by lithium administration, during which higher plasma levels correlated significantly with poor performance on perceptuomotor tasks. In patients receiving unilateral electoconvulsive therapy

(ECT), more errors in perception occurred on the side contralateral to the one on which they received ECT. Electroencephalograph data resulting from the various types of treatment is discussed. 36 references. (Author abstract modified)

162364 Morrison, S. D.; Erwin, C. W.; Gianturco, D. T.; Gerber, C. J. Dept. of Psychiatry, Duke Univ. Med. Ctr., Durham, NC Effect of lithium on combative behavior in humans. **Diseases of the Nervous System. 34(3):186-189, 1973.**

To determine the effect of lithium on combative behavior in humans, 23 hyperaggressive patients participated in a two part study in which they were treated with lithium carbonate. None of these patients had affective disorders. There was a significant decrease in combative behavior in a number of the subjects. In that these results agree with those from previous studies using both humans and animals, it is suggested that lithium may be of therapeutic value in the treatment of hyperaggressive behavior. Further studies are warranted. 20 references. (Author abstract modified)

163746 Allen, S. R.; Oswald, I. Department of Psychiatry, University of Edinburgh, Royal Edinburgh Hospital, Edinburgh EH10 5 HF, Scotland The effects of perlapine on sleep. **Psychopharmacologia (Berlin). 32(1):1-9, 1973.**

The effects of perlapine, a new hypnotic, on the sleep of two normal subjects were studied. The drug decreased intrasleep restlessness (frequency of shifts into stage I sleep or wakefulness) and also decreased paradoxical sleep duration, but did not alter stages III and IV sleep. A more extended study consisted of a baseline week, 3 weeks of drug and 2 withdrawal weeks. Three men took 10mg and two men 20mg of perlapine nightly. The decrease of intrasleep restlessness and the absence of suppression of stages III and IV were confirmed. Time spent in drowsiness and wakefulness were reduced. Paradoxical sleep was reduced in duration, with a short lasting rebound. The 20mg dose appeared to increase the duration of stages III and IV sleep in the first week. 16 references. (Author abstract)

163755 Pearl, Joseph H.; Domino, Edward F.; Rennick, Phillip. Department of Educational Psychology, Oklahoma State University, Stillwater, OK 74074 Short-term effects of marijuana smoking on cognitive behavior in experienced male users. **Psychopharmacologia (Berlin). 31(1):13-24, 1973.**

The effects of smoking marijuana on the ability to use abstract concepts was tested in 12 experienced marijuana users. Each subject was tested three times, after smoking prepared cigarettes containing either 0, 1.5or 2.9% delta9-tetrahydrocannabinol (THC) in different sessions according to a Latin Square design. The same number of whole and/or partial cigarettes was smoked by each subject in each of the three sessions. This was determined for individual subjects by the number of 2.9% THC marijuana cigarettes that the subject had been willing to smoke in a preexperimental session up to a maximum of 1200mg. Marijuana smoking led to a dose related impairment on the letter series, word grouping, closure speed, and Embedded Figures test. Performance on the size - weight illusion, Luchin's Water Jar, Luchin's Hidden Word, and the anagram tests were unaffected. Conceptual clustering decreased after marijuana smoking. In most cases only the differences between 0 and 2.9% THC marijuana were statistically significant. 21 references. (Author abstract modified)

163773 Monti, Jaime M.; Altier, Humberto. Departamento de Farmacologia y Terapeutica, Hospital de Clinicas, Montevideo, Uruguay Flunitrazepam (Ro5-4200) and sleep cycle in normal subjects. **Psychopharmacologia (Berlin). 32(4):343-349, 1973.**

The action of flunitrazepam (Ro 5-4200) a benzodiazepine derivative was assessed on the sleep cycle of normal volunteers by means of all night recordings. Baseline placebo nights were compared with the drug (2mg p.o.)and with the placebo postdrug nights. Flunitrazepam induced a shift to faster frequencies of the electroencephalogram and increased nonrapid eye movement (nREM) sleep. REM sleep was decreased at the expense of a smaller number of REM periods and shifted to the last two thirds of the night. During drug administration an adaptation was seen to the depressive action on REM sleep. Following withdrawal, an REM rebound was observed only during the first thirds of the night. 12 references. (Author abstract)

163777 Belch, Per; Rafaelsen, Lise; Rafaelsen, Ole J. Psychochemistry Institute, Rigshospitalet, 9 Blegdamsvej, DK-2100 Copenhagen, Denmark Cannabis and alcohol: effects on estimation of time and distance. **Psychopharmacologia (Berlin). 32(4):373-381, 1973.**

The effect of cannabis and alcohol on estimation of time and distance during simulated car driving was studied. Cannabis resin containing 4% delta1-tetrahydrocannabinol (THC) was administered orally in three doses equivalent to 8, 12, and 16mg THC. Alcohol was given orally in one dose of 70g. The subjects were eight men, 21 to 29 years old. Cannabis showed much stronger effect than alcohol on the estimation of time and distance. The effect of cannabis was more marked on the subjective than on the objective estimation. A dose response type of effect was seen on cannabis. 20 references. (Author abstract)

164269 Network for Continuing Medical Education, 15 Columbus Circle, New York, NY 10023. (212-541-8088) VIS(R)$25 Single Patient-Oriented Neuro-Psychopharmacology. 3/4 inch videocassette B&W 15 min, 1972.

The film presents an objective method of evaluating the effects of drug therapy in neuropsychiatric disease. For physicians' use only. Also available in other video formats.

165416 Clausen, Jerry; Fisher, Seymour. Department of Psychiatry, SUNY, Upstate Medical Center, Syracuse, NY 13210 Effects of amphetamine and barbiturate on body experience. **Psychosomatic Medicine. 35(5):390-405, 1973.**

The effects of amphetamine and barbiturate on body experience and mood were studied in 75 normal females who were given two dosage levels of both drugs and a placebo in a randomized, test retest, double blind investigation. All substances ingested led to an increase in the definiteness of body boundary, with the increase following both placebo and amphetamine significantly exceeding that previously obtained under analogous nonspecific stress. The only consistent alteration of body experience with all substances was a significant increase in feelings of depersonalization, with pentobarbital effecting the most increase. The pentobarbital groups reported a significantly greater increase in fatigue and decrease in concentration than the amphetamine groups. Considering all drugs combined, depersonalization correlated significantly with increased fatigue and decrease in concentraton. Results indicated that the greater the potency of the drug the more likely the pattern of body experience was to alter from the habitual baseline body landmark. 34 references. (Author abstract modified)

165642 Oswald, Ian; Lewis, S. A.; Tagney, J.; Firth, H.; Haider, I. Univ. Dept. of Psychiatry, Royal Edinburgh Hospital, Morningside Park, Edinburgh EH 10 5HF, Scotland Benzodiazepines and human sleep. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 613-625).**

The effects of two benzodiazepines, nitrazepam or Mogadon, flurazepam and chlordiazepoxide on human sleep was investigated. The drugs are safe in clinical use. They diminish restlessness in sleep and reduce paradoxical sleep in duration and intensity, with effects on concomitant dreaming. Sleep stages 3 and 4 tend to be reduced with continuous administration over a period of time. Rebound abnormalities occur on withdrawal. The rebound phenomena is discussed. The distortion of normal sleep patterns by the drugs must be presumed to have some adverse consequences but more research is needed to indicate both the nature and intensity of the consequences. 23 references. (Author abstract modified)

166068 Sathananthan, Gregory; Angrist, Burton M.; Gershon, Samuel. Neuropsychopharmacology Research Unit, New York University Medical Center, New York, NY Response threshold to l-dopa in psychiatric patients. **Biological Psychiatry. 7(2):139-146, 1973.**

The effects of l-dopa administered to six nonschizophrenic psychiatric inpatients were examined. A mean maximal daily dose of 8.8g was attained. The behavioral effects noted were: hypersexuality, toxic confusional state, and no behavioral effects were seen in one patient each; nausea, diaphoresis, palpitations, and irritability were seen in two cases. Two patients complained of severe insomnia. Dystonic movements of the face and lips were seen in three patients. One patient showed a return of previously absent spontaneous erections. One patient who had no history or predrug psychopathology suggestive of schizophrenia developed a paranoid schizophreniform psychosis. The findings are discussed with respect to both the theoretical implications of a psychosis occurring after l-dopa administration and the far greater sensitivity to l-dopa shown by schizophrenics who received the drug in a prior study. 35 references. (Author abstract)

166720 Evans, Michael A.; Martz, Robert; Brown, Daniel J.; Rodda, Bruce E.; Kiplinger, Glenn F.; Lemberger, Louis; Forney, Robert B.

Department of Pharmacology and Toxicology, Indiana University School of Medicine, Indianapolis, IN Impairment of performance with low doses of marihuana. **Clinical Pharmacology and Therapeutics. 14(6):936-940, 1973.**

The effects of marihuana on performance were studied. Eight volunteers smoked marihuana cigarettes under controlled laboratory conditions on four separate occasions. The cigarettes were calibrated to deliver doses of 0, 3, 6, and 9micrograms/kg of delta9-tetrahydrocannabinol (THC). The experimental design was a double-blind random block with a 1 week interval between sessions. Analysis of variance revealed a significant linear decrease in stability with increase in dose of THC. The tracking scores with Pursuit Meter (PM) demonstrated a significant increase above control for all three doses of THC. Mental performance, as evaluated by Delayed Auditory Feedback (DAF), and subjective evaluation revealed no consistent change with dose. 13 references. (Author abstract)

166723 Hartmann, Ernest; Cravens, James. Boston State Hospital, 591 Morton Street, Boston, MA 02124 The effects of long term administration of psychotropic drugs on human sleep: III. The effects of amitriptyline. **Psychopharmacologia (Berlin). 33(2):185-202, 1973.**

The effects of the daily administration of amitriptyline to normal young males were studied. Effects on laboratory recorded sleep, home sleep, and mood were studied. Total sleep time was significantly increased throughout administration, while slow wave sleep was increased and sleep latency decreased early during administration. Desynchronized sleep (D-time) and D-time percent were decreased throughout administration, most prominently for the first days; there was a rebound increase after discontinuation of medication. In these subjects, amitriptyline did not alter depression as measured by mood scales, but did produce a number of different complaints in the morning. 40 references. (Author abstract)

166724 Hartmann, Ernest; Cravens, James. Boston State Hospital, 591 Morton Street, Boston, MA 02124 The effects of long term administration of psychotropic drugs on human sleep: II. The effects of reserpine. **Psychopharmacologia (Berlin). 33(2):169-184, 1973.**

The effects of long-term administration of reserpine on laboratory sleep, home sleep, and mood were studied throughout the period of administration. Results were compared to identically administered long-term placebo. Total sleep was slightly increased at first; desynchronized sleep (D-time) and the number of D-periods were clearly increased by reserpine. These effects were prominent from day three, through the second week. D-latency and length of the sleep - dream cycle was decreased. Subjective aspects of sleep were not greatly changed. Mood scales indicated an increase in fatigue and a decrease in vigor during reserpine administration. 36 references. (Author abstract modified)

166725 Hartmann, Ernest; Cravens, James. Boston State Hospital, 591 Morton Street, Boston, MA 02124 The effects of long term administration of psychotropic drugs on human sleep: I. Methodology and the effects of placebo. **Psychopharmacologia (Berlin). 33(2):153-167, 1973.**

The effects on human sleep of long-term administration of reserpine, amitriptyline, chlorpromazine, chloral hydrate, and chlordiazepoxide were studied. Comparisons between the long placebo only period of this study and the more usual baseline period -- laboratory nights 4-6 -- revealed a significantly higher total desynchronized sleep time (D-time) and D-time percent in the placebo period. Other variables were not significantly different. Some clear changes over time within the long placebo are also described. 20 references. (Author abstract modified)

167106 Hollister, Leo E. Veterans Administration Hospital, Palo Alto, CA Prediction of therapeutic uses of psychotherapeutic drugs from experiences with normal volunteers. **Clinical Pharmacology and Therapeutics. 13(5/2):803-808, 1972.**

Psychopharmacological experiments employing double-blind technics and normal volunteer Ss are discussed. Normal Ss can provide useful data on sedative and stimulant drugs; to a lesser degree, antianxiety drugs; and are of dubious value in antipsychotic and antidepressant studies. Nonpatient anxious subjects show a useful application in initial screening of sedatives. Dosage data can be drawn from inpatient anxious Ss. Sympathomimetic stimulants can be detected precisely with normal Ss. The effects of some antipsychotic and antidepressant drugs were correlated retrospectively from clinical applications. Screening batteries based on these correlations can be applied to other drugs. 15 references.

167107 Oates, John A. Vanderbilt Univ. School of Medicine, Nashville, TN A scientific rationale for choosing patients rather than normal subjects for Phase I studies. **Clinical Pharmacology and Therapeutics. 13(5/2):809-811, 1972.**

The rationale for use of properly chosen inpatients in dosage studies of psychotropic drugs is explained. Phase one studies may be limited by nonavailability of experimental agents, requiring maximal application in studies aimed at the psychiatric patient. Needless exposure of normal Ss to potentially toxic drugs administered in uncertain doses is deplored. Generally, therapeutic doses are much greater than those which are applied to normal Ss. Rather, the testing of specific drugs on specific disease states in psychiatric inpatients is suggested. 4 references. (Author abstract modified)

15 TOXICOLOGY AND SIDE EFFECTS

149916 Neff, L. no address Untoward responses to medication in adolescents. **In: Miller, L., 4th Intl. Cong. of Social Psychiatry: Abs. of Papers. Jerusalem, Ahva Cooperative, 1972. 237 p. (p. 171).**

In an abstract of a paper presented at the Fourth International Congress of Social Psychiatry, ego disorganization resulting from medically prescribed drugs is discussed. When the side-effects of somnolence and inhibition of motor activity occur, they can block two of the most characteristic defensive adaptive responses of adolescents, i.e.,intellectualization and motor activity. Anxiety and depression, the latter particularly related to the loosening of object ties normally occurring in early and mid-adolescence, develop. Estrangement and depersonalization may follow along with other regressive defenses, and other symptoms of ego disorganization become manifest. Preexisting conflicts and psychopathology that had been successfully defended against or encapsulated may also appear for the first time. The duration of the disorganization may be limited to the period of time that the patient is taking the medication or continue long after the effects of the medication have worn off. The psychopathological reaction may continue independently of the drug effect, apparently being a function of the preexisting ego strength of the patient. The effects of such experiences on adolescent ego development is also explored. (Author abstract modified)

150155 no author. no address Chemical influences on behaviour. **Medical Journal of Australia (Sydney). 2(21):1158-1159, 1972.**

The effects of psychoactive drugs on behavior, especially behavioral abnormalities in newborn children, are discussed. A serious shortage in research programs which could be designed to prevent interference with in-utero physical development is explored. The need to adequately research the proliferation of drugs acting on the central nervous system, is stressed; minimal behavioral abnormalities and those which are not detected until later in life have yet to be recognized. The difficulty of detecting a causal relationship in preclinical or clinical studies is noted, as is the difficulty of generalizing from animal to human studies. The possibility that chronic drug use during pregnancy has effects on the central nervous system which give rise to abnormal intellectual and emotional function is discussed. It is concluded that despite the difficulties in proving this possibility, positive disproof of such an association should be obtained before recommending such drugs for pregnant women.

150256 Deniker, P.; Fraisse, B. Clinique des Maladies Mentales et d'Encephale, Hopital Sainte-Anne, 1, rue Cabanis, 75 Paris 14, France /The management of lithium in psychotherapy./ Le maniement du lithium en therapeutique psychiatrique. **Therapeutique (Paris). 48(1):79-81, 1972.**

Two essential principles in the management of lithium therapy for manic or depressed patients are: 1) the systematic search for contraindications, and 2) the regular determination of lithium concentration in the blood. Any renal or cardiac anomaly must be regarded as a contraindication for this treatment. It is advisable to aim for a blood lithium level of 0.70 to less than 1 mEq. The lithium effect is usually manifested clinically at about the time the blood level is 0.50 mEq. The initial dose is usually 0.50gm/day. It is advisable to keep a record of each patient's lithium curve over the period of treatment. There is no undesirable interaction with other medication (neuroleptic or antidepressive), but the diet must contain a normal amount of salt, in order to avoid a possible replacement of the sodium ion by lithium, thus causing renal toxicity. Symptoms of lithium intoxication include: digestive manifestations (loss of appetite, nausea, and vomiting); and neuropsychiatric symptoms: exaggerated tremors, marked dysarthria, headaches, ataxia, and coma.

150404 Martz, Robert; Brown, Daniel J.; Forney, Robert B.; Bright, Thomas P.; Kiplinger, Glenn F.; Rodda, Bruce, E. Dept. of Toxicology, Indiana Univ. Sch. of Med., Indianapolis, IN Propranolol antagonism of marihuana induced tachycardia. **Life Sciences. 11(21):999-1005, 1972.**

An investigation of propranolol antagonism of marihuana induced tachycardia was conducted on a double-blind basis according to a completely randomized design. There were four groups consisting of six subjects each: propranolol pretreatment plus marihuana; propranolol pretreatment plus placebo marihuana; placebo propranolol pretreatment plus marihuana; and placebo propranolol pretreatment plus placebo marihuana. Smoking of active marihuana resulted in a significant increase in heart rate. The prior administration of propranolol antagonized the marihuana induced tachycardia both in magnitude and duration. However, propranolol pretreatment neither decreased the number of responses on the Cornell Medical Index following the smoking of marihuana nor interfered with the subject's ability to distinguish active marihuana from placebo marihuana. It is concluded that the mechanism of marihuana induced tachycardia requires further investigation. 8 references. (Author abstract modified)

150579 Terpstra, Cheryl; Parker, Howard E. Health Service, Univ. of Michigan, Ann Arbor, MI 48104 Dosage control of drugs with lethal potency for university level patients. **Journal of the American College Health Association. 21(4):373-376, 1973.**

Health service physicians and pharmacists at the University of Michigan present an analysis of dosage control of drugs with lethal potency for university level patients. In order to establish the minimum lethal dose for those drugs available at the health service, letters were sent fo those pharmaceutical firms which produced the drugs of interest, requesting, for each drug, information on MLD, largest ingestion with recovery, maximum nonfatal dose and, if possible, case reports of attempted or accidental poisoning. The data are presented according to the schedules of the Controlled Substance Act. The following information is provided for each drug: brand name, generic name, average daily dose, estimated MLD, references, and suggested maximum prescription. 25 references.

150631 Agnoli, A.; Casacchia, M.; Reitano, M.; Ruggieri, S.; Barba, C.; Zamponi, A. Clinica delle Malattie Nervose e Mentali, Universita di Roma, Rome, Italy /Comparison of L-dopa with its association with an L-dopa decarboxylase inhibitor in the management of Parkinson's disease./ Trattamento del morbo di Parkinson con L-Dopa e con una associazione di L-Dopa + inhibitore della Dopa-decarbossilasi. **Minerva Medica Giuliana (Torino). 63(89):4853-4861, 1972.**

Side-effects from oral administration of L-dopa include gastrointestical disturbances and hypotension due to irritation of the mucous membrane, increases in circulating catecholamines, and involuntary movements caused by stimulation of certain mesencephalo-diencephalic pathways. Attempts to minimize these side-effects in experimental animals by the addition of decarboxylase inhibitors to dopa have enhanced blood dopa residence times and enabled dose reduction with concurrent reduction in side-effects, provided that the drugs were administered at the peripheral and not the central level. Human tests involving 60 patients on L-dopa and 24 patients on 200mg L-dopa plus 50mg inhibitor Ro 4/4602 confirmed the animal results. The incidence of side-effects was lowered and tremors were better controlled. A higher percentage of improvement in all primary symptoms of parkinsonism also resulted. 11 references. (Author abstract modified)

150646 Lelord, G.; Etienne, T.; Jusseaume, P.; Stephant, J.-L.; Andre, E. no address /Mouth dryness, a notable reaction to psychotropic therapy, and its treatment./ La secheresse buccale, inconvenient notable des traitements psychotropes, et son traitement. **Annales Medico Psychologiques (Paris). 1(1):153-159, 1973.**

The problem of mouth dryness after treatment with psychotropics is discussed in relation to chemical correction with the drug trithioparamethoxyphenylpropene. The psychotropics considered include: levomepromazine, chlorpromazine, thioridazine, propericiazine, imipramine, amitriptyline, opipramol, dibenzepine, diazepam and meprobamate. Results indicate that treatment with trithioparamethoxyphenylpropene stimulated salivary secretion. 20 references. (Author abstract modified)

150669 Meltzer, H. Y. Dept. of Psychiatry, University of Chicago, 950 E. 59 St., Chicago, IL 60637 Rigidity, hyperpyrexia and coma following

fluphenazine enanthate. **Psychopharmacologia (Berlin). 29(4):337-346, 1973.**

A case study in which extrapyramidal and hypothalamic symptoms developed 24 hours after a subcutaneous injection of 25mg fluphenazine enanthate is reported. The patient was an acute schizophrenic girl with mixed schizoaffective and excited catatonic symptomatology. She became mute and withdrawn, then developed severe muscular rigidity and hyperpyrexia, and finally comatose. The patient developed large increases in serum creatine phosphokinase (CPK) activity by the third day of the syndrome. The symptoms, which have been labeled the neuroleptic malignant syndrome, diminishes with supportive treatment and intravenous benztropine mesylate (Cogentin). Because of renewed psychotic behavior, phenothiazine treatment was eventually restarted, including treatment with fluphenazine enanthate, without recurrence of the extrapyramidal or hypothalamic symptoms. The difficulty in distinguishing between the neuroleptic malignant syndrome and Stuader's acute lethal catatonia is emphasized. The relationship between these syndromes and malignant hyperpyrexia and possible causes of the increased serum CPK activity are discussed. 51 references. (Author abstract)

150670 Sicuteri, F.; Anselmi, B.; Del Bianco, P. L. Dept. of Clinical Pharmacology, Univ. of Florence, 85, Viale Morgagni, I-50134, Florence, Italy 5-Hydroxytryptamine supersensitivity as a new theory of headache and central pain: a clinical pharmacological approach with p-chlorophenylalanine. **Psychopharmacologia (Berlin). 29(4):347-356, 1973.**

Vascular supersensitivity to 5-hydroxytryptamine, but not to noradrenaline was observed in volunteers suffering from untreatable migraine, following treatment with parachlorophenylalanine, a specific serotonin depletor. A similar supersensitivity at brain level is claimed to explain an unusual systemic pain syndrome developed in four patients affected by migraine and treated with this serotonin depleting agent: hyperalgesia, hyperpathia, spontaneous pain, according to the picture of central pain, are demonstrable. The pain syndrome is reversible with the drug discontinuation. It reappears promptly when the treatment is started again. The pain from serotonin depletion may represent a chemical approach to the mechanism of central pain, such as thalamic syndrome, and may give a new suggestive light to the serotonin interpretation of migraine, and some daily headaches. The increased vascular and nervous responsitivity in patients suffering from migraine to monoamines and correlated drugs (5-HT, noradrenaline, metaraminol, LSD-25, and psylocibine), may be interpreted in terms of central and peripheral monoamine supersensitivity. 19 references. (Author abstract)

150772 Vacek, J. Psychiatricke oddeleni OUNZ, Karlovy Vary, Czechoslovakia /Acathistic and tasikinetic (moving pelvis) syndromes and the restless legs syndrome./ Syndrom akatizie, tasikineze a syndrom neklidnych nohou. **Ceskoslovenska Psychiatrie (Prague). 68(6):338-347, 1972.**

Available information about the acathistic and tasikinetic (moving pelvis) syndromes and the restless legs syndrome are reviewed. These syndromes may have different pathogenesis but they may also be important extrapyramidal symptoms complicating modern psychopharmacotherapy. Three case histories are described: a woman whose restless legs syndrome was due to venostasis of the lower extremities; a man suffering from the restless legs syndrome gradually developed the acathistic and tasikinetic syndrome for which the cause was never found; and an acathistic and tasikinetic syndrome accompanied a cerebral psychosyndrome following the surgical removal of astrocytoma from the right temporal lobe of a patient. After initial failure of all therapeutic attempts to suppress acathistia or tasikinesia a success was achieved with antiparkinson drugs. A quantitative relationship exists among the three syndromes; the restless legs syndrome is the mildest and the tasikinetic syndrome the severest. This valuation applies especially when these syndromes are induced as side-effects in psychopharmacotherapy. 21 references. (Author abstract modified)

150797 Hussain, M. Z.; Khan, A. G.; Chaudhry, Z. A. Dept. of Public Health Psychiatric Centre, Victoria Union Hospital, 1200 24th St. W., Prince Albert, Sask. S6V 5T4, Canada Aplastic anemia associated with lithium therapy. **Canadian Medical Association Journal (Toronto). 108(6):724-725, 728, 1973.**

A case is reported of fatal aplastic anemia developing in a 50-year-old woman who received lithium carbonate in the generally accepted dosage for a manic-depressive disorder. The serum lithium had been determined at regular intervals and never exceeded what is considered a safe level. Despite the widespread use of lithium carbonate,

the mechanisms of its hematologic effects have not been adequately investigated. In the patient described here, the usual finding of neutrophil increase was reversed, these cells being first to be depleted. This is probably the first clinical report of pancytopenia and eventual death with the use of lithium carbonate. Periodic hematologic examinations need to be included in patients under treatment with lithium. 11 references. (Author abstract modified)

150827 Briant, Robin H.; Reid, John L.; Dollery, Colin T. M. R. C. Clinical Pharmacology Research Group, Royal Postgraduate Medical School, London W12 OHS, England Interaction between clonidine and desipramine in man. **British Medical Journal (London). No. 5852:522-523, 1973.**

Interaction between the tricyclic antidepressant desipramine and the antihypertensive agent clonidine is investigated in five hypertensive patients in a double-blind placebo controlled study. Introduction of the tricyclic antidepressant (75mg/day) led to loss of blood pressure control in four of the patients. The average blood pressure rise in the desipramine period compared with the placebo period was 22/15 mm Hg in the lying position and 12/11 mm Hg standing. Careful observation of any patient whose blood pressure is controlled with clonidine and who requires therapy for concomitant depression is recommended when tricyclic drugs are used. 9 references. (Author abstract modified)

150843 Weiden, Paul L.; Buckner, C. Dean. Adult Leukemia Research Ctr., Div. of Oncology, Dept. of Medicine, Univ. of Washington School of Medicine, Seattle, WA Thioridazine toxicity: agranulocytosis and hepatitis with encephalopathy. **Journal of the American Medical Association. 224(4):518-520, 1973.**

A 54-year-old man developed agranulocytosis and hepatitis 7 weeks following institution of thioridazine therapy. Agranulocytosis resolved after 14 days without specific therapy, but the hepatitis resulted in deterioration of liver function, hepatic encephalopathy, and cardiac arrest. Following resuscitation and recovery, myasthenia gravis was diagnosed. This is the first report in the literature of the simultaneous occurrence of agranulocytosis and hepatitis during thioridazine therapy, and of hepatic coma related to the use of this phenothiazine. 15 references. (Author abstract)

151045 no author. no address Mental symptoms and parkinsonism. **British Medical Journal (London). No. 5858:67-68, 1973.**

The relationship between mental symptoms and parkinsonism is discussed. Psychiatric disturbances were found and studied in 153 patients suffering from (idiopathic) Parkinson's disease. Every type of Parkinson's syndrome, whether postencephalitic, arteriosclerotic, or toxic, produced similar psychiatric sequelae. Of the 61 patients (40%) diagnosed as suffering from dementia, 24 were classified as mild, 26 as moderate, and 11 as severe. The mental impairment increased with the progression of the disease. Fifty seven (37%) had symptoms of depression or had been depressed in the year preceding their initial evalution. The prevalence of depression was 37% of patients not treated with levodopa and 24% of those receiving the drug. The third category of mental disturbance, acute psychotic episodes, comprised attacks in which the patient experienced hallucinations, distortion of reality, and various degrees of behavioral disorder. These episodes were attributed to the drug used in treatment. 4 references.

151048 Gibberd, F. B.; Small, Elizabeth. Westminster Hospital Group, London SW1P 2AP, England Interaction between levodopa and methyldopa. **British Medical Journal (London). No. 5858:90-91, 1973.**

The interaction between methyldopa and levodopa was studied in 18 patients with parkinsonism. Together they produced a fall in blood pressure in doses which, when given alone, had no effect or only a slight hypotensive effect. Severe hypotension never occurred. 11 references. (Author abstract modified)

151049 Morgan, H. Gethin; Boulnois, Julian; Burns-Cox, Christopher. Dept. of Mental Health, Univ. of Bristol, Bristol BS8 1TH, England Addiction to prednisone. **British Medical Journal (London). No. 5858:93-94, 1973.**

A case history is presented of a 22-year-old woman who was addicted to prednisone. She showed symptoms of intense anxiety and expressed fears of recurrence of bronchial asthma although there was no objective evidence of bronchospasm. Prednisone medication had been intermittent until six months before her referral, when she began increasing doses daily. The diagnosis was thought to be one of secondary Cushin-

goid state (due to an addictive dependence on prednisone) and bronchial asthma. She was admitted immediately to a psychiatric ward and prednisone was withdrawn over a 4-week period. It is concluded that this dependence was predominantly psychological in nature. 3 references.

151156 Brown, Colin R.; Forrest, William H., Jr.; Hayden, Johan; James, Kenneth E. Dept. of Anesthesia, Stanford Univ. School of Medicine, Stanford, CA Respiratory effects of hydromorphone in man. **Clinical Pharmacology and Therapeutics. 14(3):331-337, 1973.**

The respiratory depressant effects of hydromorphine, a potent analgesic, were compared with morphine in a randomized double-blind crossover study using six male volunteers between the ages of 21 and 24 years. Using a rebreathing technique, carbon dioxide response curves were plotted automatically with a special purpose analog computer. The respiratory depressant relative potency of hydromorphone to morphine over the total observation period was found to be 7.99, with lower and upper 95% confidence limits of 5.44 and 10.69. Based on the displacement of the respiratory response curve, approximately 1.25mg of hydromorphone was equivalent to 10mg of morphine in the population studied. For peak respiratory depression, 0.95mg of hydromorphone was equivalent to 10mg of morphine. 12 references. (Author abstract)

151376 Czarnecka, Elzbieta; Hain-Mazurkiewicz, Grazyna. Klinika Neurologiczna W.A.M., Lodz, ul. Kasprzaka 64a m. 40, Poland /Toxic encephalopathy following long-term administration of phenmetrazine./ Encefalopatie toksyczne po dlugotrwalym przyjmowaniu fenmetrazyny. **Wiadomosci Lekarskie (Warszawa). 25(21):1977-1979, 1972.**

Two cases of organic central nervous system damage following long-term treatment with phenmetrazine are described. In one patient, a 44-year-old woman who ingested as much as seven tablets daily, a hemiparesis and motor and sensory aphasia were diagnosed. In addition, the patient became fearful, paranoid and refused to leave the house. Another patient, a 40-year-old woman who ingested one tablet daily for 6 months developed disseminated lesions of the central nervous system. Both improved after withdrawal of the drug. It is stressed that phenmetrazine in addition to inducing psychosis can also cause the development of encephalopathy. 7 references. (Author abstract modified)

151592 Safer, Daniel J.; Allen, Richard P. Baltimore County Dept. of Health, 505 Eastern Blvd., Baltimore, MD 21221 Factors influencing the suppressant effects of two stimulant drugs on the growth of hyperactive children. **Pediatrics. 51(4):660-667, 1973.**

The effects of the regular intake of stimulant medication for 2 or more years on growth (in terms of height and weight) was evaluated in 63 hyperactive children, 29 of whom received dextroamphetamine, 20 of whom received methylphenidate, and 14 of whom received no medication because of parental objection. It was found that the long-term use of dextroamphetamine in hyperactive children causes a highly significant suppression of growth in terms of height and weight, and that tolerance develops to the weight suppressant effects of dextroamphetamine, but not to its inhibition of height growth. The long-term use of methylphenidate causes a less striking suppression of growth, and only when daily doses of over 20mg are administered. Increasing the total degree of stimulant drug use over time generally increases the degree of growth suppression. 12 references. (Author abstract)

151695 Pekkarinen, A.; Rinne, U. K.; Salokangas, R.; Siirtola, T.; Sonninen, V. Depts. of Neurology and Pharmacology, University of Turku, Turku, Finland Plasma testosterone content of male patients with Parkinson's disease during L-dopa treatment with or without dopadecarboxylase inhibitor. **Acta Neurologica Scandinavica (Supplement) (Kobenhavn). 48(51):129-130, 1972.**

The plasma testosterone content of 24 male patients with Parkinson's disease was analyzed using a modification of the competitive protein binding method both before and during long-term treatment with L-dopa (3 to 5g daily), in order to clarify reported aphrodisiac effects. Mean values during L-dopa treatment did not differ significantly from values before treatment, which were within the normal range. Treatment with L-dopa and the dopadecarboxylase inhibitor Ro 4-4602 caused no rise of plasma testosterone level. The aphrodisiac action of L-dopa treatment does not seem to be related to testosterone secretion.

151932 Australian Drug Evaluation Committee. P.O. Box 100, Woden, A.C.T., 2606, Australia Tricyclic antidepressants and limb reduction deformities: a further communication from the Australian Drug Evaluation Committee. **Medical Journal of Australia (Sydney). 1(15):768-769, 1973.**

A possible causal relationship between the maternal intake of tricyclic antidepressants and the occurrence of limb reduction deformities in the offspring was investigated in Sidney, Australia. The subjects were seven mothers who had taken a variety of drugs during pregnancy, and their deformed children. Obstetric records from Australia, Germany, England, Canada, and the United States were reviewed, and results of previous related studies were examined. The data indicated that the number of cases of limb reduction deformities was insufficient to establish a positive correlation with any particular agent. The available information does not support the contention that tricyclic antidepressants are a cause of limb reduction deformities. It is suggested that caution be exercised in prescribing drugs to women of childbearing age, particularly those who are pregnant. 18 references.

152032 Lavender, S.; Brown, J. N.; Berrill, W. T. Wessex Regional Renal Unit, St. Mary's Hospital, Portsmouth, England Acute renal failure and lithium intoxication. **Postgraduate Medical Journal. 49(570):277-279, 1973.**

A case of acute renal failure is reported in a patient with severe lithium intoxication. Renal biopsy showed damage in the proximal tubules with less marked changes in the glomeruli and interlobular arteries. Lithium was withdrawn, and after treatment with peritoneal dialysis the patient regained normal renal function. The accumulation of lithium is known to lead to acute renal failure in the rat and the dog, and this report provides further evidence that it may do so in man. 10 references. (Author abstract)

152036 Kay, H. E. M.; Knapton, P. J.; O'Sullivan, J. P.; Wells, D. G.; Harris, Ruth F.; Innes, Elizabeth M.; Stuart, J.; Schwartz, F. C. M.; Thompson, E. N. Royal Marsden Hospital, Fulham Road, London SW3 6JJ, England Encephalopathy in acute leukaemia associated with methotrexate therapy. **Archives of Disease in Childhood (London). 47(253):344-354, 1972.**

Seven patients are described in whom dementia developed during treatment with methotexate for meningeal leukemia. The patients presented with confusion, tremor, ataxia, irritability, and somnolence. There were major epileptic fits in two cases and in one case there was progression to coma and death. Necropsy findings in the latter showed infarcted areas in the temporal and parietal lobes, with no evidence of active leukemic disease or of viral encephalitis. The condition has not responded to radiotherapy and no positive evidence of viral encephalitis has been obtained. On the other hand, when treated with folinic and folic acid the deterioration has been arrested and there has been some improvement; the condition thus appears to be due to methotrexate. The occurrence of so many cases within the past year of a condition not previously described is probably attributable to the introduction of intensive cytotoxic therapy directed against meningeal leukemia. 21 references. (Author abstract)

152085 Kop, Pavle; Cosic, V.; Simic, B.; Andelski, A.; Brdjovic, Ph. Cliniques des Maladies Internes de l'Academie Medico-Militaire de Belgrade, Yugoslavia /Analysis of clinical experiences obtained in 100 cases of acute Apaurine-diazepam intoxication./ Analyse des experiences cliniques obtenues dans 100 cas d'intoxication aigue par Apaurine-diazepam. **Bulletin de Medecine Legale et de Toxicologie Medicale (Lyon). 15(4):243-251, 1972.**

In 22 years of treatment of acute drug intoxications, Apaurine (diazepam) was found to be the cause in 20.5% of the cases. One hundred of these patients were observed for: neuropsychiatric disorders, respiratory difficulties, and cardiovascular symptoms. The neuropsychiatric symptoms, which included disturbances of consciousness and EEG abnormalities, varied in terms of the quality of the drug taken, the interval between the administration and admission to hospital, first aid treatment, and length of hospital stay. The clinical signs of intoxication were more frequently described as neurological and cardiovascular. All the patients survived the intoxication, most of whom showed only mild symptoms (75%). 20 references.

152089 Fleischhauer, J. Psychiatrische Universitatsklinik, Wilhelm Klein Str. 27, CH-4000 Basel, Switzerland /Drug allergy to thioxanthene, manifested by the morphological picture of erythema exsudativum multiforme, as a result of taking clopenthixol./ Arzneimittelallergie auf Thioxanthene, einhergehend unter dem morphologischen Bilde eines Erythema exsudativum multiforme, entstanden unter Clopenthixol. **Pharmakopsychiatrie Neuropsychopharmakologie (Stuttgart). 5(3):147-155, 1972.**

A systematic review of the literature with respect to allergies caused by psychopharmaceuti-

cal medication is presented together with an individual observation in a patient who manifested such a reaction to clopenthixol (a thioxanthene derivative). The patient, a 58-year-old schizophrenic female was first treated with parenterally administered chlorpromazine at age 42, which caused a certain degree of psychomotor sedation. Ten years later, severe vegetative dystonia was accompanied by a definite dermographia, the first symptom of increased skin reactivity. Due to an exacerbation of her schizophrenic manifestations, the chlorpromazine was replaced by a single i.m. injection of clopenthixol together with 3 x 25mg daily, combined with akineton and evipan. A reaction was first discovered 6 days after the initiation of treatment, which developed into a multiform exudative erythema. Chlorprothixene, clopenthixole, flupenthixole, and methixene were tested by intracutaneous injection for antigen antibody reaction; it was shown that the compounds containing chlorine were responsible for the reaction. 24 references.

152137 Martinez, Guillermo; Snyder, Russell D. Dept. of Neurology, Univ. of New Mexico School of Medicine, Albuquerque, NM 87106 Transplacental passage of primidone. **Neurology. 23(4):381-383, 1973.**

A syndrome of abnormal tremulousness in a newborn infant whose mother had been taking primidone in standard doses during pregnancy is described. The tremulousness continued for the first few days after birth, and primidone was found in the blood and urine of the infant. The administration of the drug to 10 other women in labor followed by analysis of cord blood confirmed the transplacental passage of primidone. It is concluded that primidone should be added to the list of drugs which may cause withdrawal reactions in the newborn. 16 references. (Author abstract)

152168 Ayd, Frank J., Jr. Internation Drug Therapy Newsletter, 912 West Lake Avenue, Baltimore, MD 21210 Doxepin with other drugs. **Southern Medical Journal. 66(4):465-471, 1973.**

A survey of more than 3,000 doxepin treated patients was performed to determine whether a combination of doxepin and other drugs is synergic, additive, indifferent, or antagonistic and to determine the clinical significance of any interaction. The results disclosed that each patient had taken regularly or intermittently one or more drugs (usually four) concomitantly with doxepin; over 150 drugs were taken along with doxepin by these patients. The few interactions that were detected are described. Rarely were these serious. Those that did occur could have been predicted on the basis of the pharmacologic properties of the drugs involved. It is concluded that doxepin can be combined safely with the majority of drugs physicians commonly prescribe. 10 references. (Author abstract modified)

152961 Alvarez-Mena, Sergio C.; Frank, Martin J. Dept. of Cardiology, Central State Hospital, Milledgeville, GA Phenothiazine-induced T-wave abnormalities: effects of overnight fasting. **Journal of the American Medical Association. 224(13):1730-1733, 1973.**

Effects of overnight fasting and potassium salts given orally (10gm) on phenothiazine induced repolarization abnormalities were evaluated in 100 psychiatric patients. Overnight fasting resulted in complete normalization of the electrocardiograms of 57 patients, while the remainder were corrected by potassium administration. The mean serum potassium level was significantly higher for the group that normalized with fasting alone. These results are explainable by a combined phenothiazine and glucose induced increase in the intracelluar - extracellurlar ratio of potassium, an important factor in the genesis of repolarization abnormalities. 20 references. (Author abstract)

153122 Mindham, R. H. S.; Gaind, R.; Anstee, B. H.; Rimmer, Lorna. University Department of Psychiatry, General Hospital, Nottingham HG1 6HA, England Comparison of amantadine, orphenadrine, and placebo in the control of phenothiazine-induced Parkinsonism. **Psychological Medicine (London). 2(4):406-413, 1972.**

A double-blind comparison was made of the effects of amantadine hydrochloride, orphenadrine hydrochloride and placebo in the control of side-effects on the extrapyramidal nervous system of fluphenazine decanoate. Patients were assessed with regard to the main symptoms of Parkinsonism, the leading clinical signs, performance in walking, writing and squeezing, changes in mood, and unwanted effects of medication. Neither of the pharmacologically active substances was superior to placebo. The paucity of evidence for the effectiveness of anticholinergic drugs in both Parkinson's disease and drug induced Parkinsonism is noted. The difficulties in performing trials of substances used in relieving the unwanted effects of

other drugs are discussed in relationship to defects in methodology. (Author abstract)

153271 Rifkin, Arthur; Quitkin, Frederic; Klein, Donald F. Department of Psychiatry, Long Island Jewish-Hillside Medical Center, Glen Oaks, NY Organic brain syndrome during lithium carbonate treatment. **Comprehensive Psychiatry. 14(3):251-254, 1973.**

A report of three manic-depressive patients treated with lithium carbonate who developed organic brain syndromes is presented. Although their lithium serum levels did not exceed the therapeutic range and they had no prodromal symptoms, all three patients may have had concomitant cerebral impairment which may account for their unusual sensitivity. 9 references. (Author abstract modified)

153273 Wise, Thomas N. Downstate Medical Center of the State University of New York, Brooklyn, NY Heatstroke in three chronic schizophrenics: case reports and clinical considerations. **Comprehensive Psychiatry. 14(3):263-267, 1973.**

The effect of thermal stress or heatstroke on the chronic schizophrenic is discussed. Data suggests that there is no direct relationship between heatstroke and schizophrenia. However, certain chronic schizophrenics do not perceive unusally hot weather and medication may predispose schizophrenics to heatstroke. Treatment suggestions include attention by clinic or ward staff to discomfort, diet, and temperature. 20 references. (Author abstract modified)

154661 Vaisrub, Samuel. 535 N. Dearborn St., Chicago, IL 60610 Cannabis and the cardiovascular system. **Journal of the American Medical Association. 255(1):58, 1973.**

The cardiovascular effects of marihuana are examined. A literature study indicates that the cardiovascular effects of marihuana are probably mediated by the beta-adrenergic mechanisms and caution is urged in the use of vasoactive drugs and anesthesia in marihuana smokers. Increased heartrate, forearm blood flow, increases in recumbent mean arterial blood pressure, in forearm conductance and in urinary excretion of free epinephrine are noted. The cumulative effects of marihuana are unknown but the danger of overreading the electroencephalogram in cannabis users and the misdiagnosing of coronary disease or perocarditis where none exists is cautioned. 2 references.

154984 Toru, Michio. Department of Neuropsychiatry, Tokyo Medical and Dental University, Japan Medical drug-induced mental disorders. **Clinical Psychiatry (Tokyo). 15(5):480-496, 1973.**

The literature on mental disorders induced by drugs is reviewed. Frequency of occurrence of psychiatric symptoms and type of symptoms induced by L-DOPA, trihexyphenidyl, disulfiram, reserpine, alpha-methyldopa, isonicotinic acid hydrazide, cycloserine, steroid, ephedrine and optalidon are discussed. The mechanisms involved in the onset of these psychiatric symptoms are also examined. 85 references.

155040 Karhunen, Pekka; Hartel, Gottfried. University Central Hospital, Helsinki, Finland Suicidal attempt with practolol. **British Medical Journal (London). 2(5859):178, 1973.**

A suicide attempt with an overdose of the beta-adrenergic drug practolol taken by a 39-year-old man is described. The patient's blood pressure and serum concentration were examined; his blood serum concentration rose to the highest values reported so far in man. The case illustrates the low toxicity of practolol and its modest cardiodepressive effect which has proved valuable in the treatment of patients with supraventricular arrhythmias and rapid ventricular rates after myocardial infarction and cardiac surgery. 2 references.

155041 Schou, M.; Goldfield, M. D.; Weinstein, M. R.; Villeneuve, A. Psychopharmacological Research Unit, Aarhus University Institute of Psychiatry, 8240 Risskov, Denmark Lithium and pregnancy -- I, Report from the register of lithium babies. **British Medical Journal (London). 5859:135-136, 1973.**

Information about 118 children born to mothers who were given lithium treatment during the first trimester of pregnancy is discussed. The data show that the risk of teratogenic effects is lower than expected from studies carried out on rats and mice, however, findings do not answer the question of whether or not lithium is teratogenic in man. The data were collected retrospectively and therefore overestimate rather than underestimate the risk of teratogenicity. 16 references. (Author abstract modified)

155042 Schou, M.; Amdisen, A.; Steenstrup, O. R. Psychopharmacology Research Unit, Aarhus University Institute of Psychiatry, 8240 Risskov, Denmark Lithium and pregnancy - II, hazards to women given lithium during pregnancy and delivery. **British Medical Journal (London). 5859:137-138, 1973.**

Lithium treatment during pregnancy and delivery is discussed. Findings indicate that the renal lithium clearance of a manic-depressive woman rose when she became pregnant and fell to the prepregnancy level when she gave birth. The lithium clearances of four healthy women were higher during pregnancy than after delivery. Results emphasize the need for frequent determinations of the serum lithium concentration and appropriate dosage adjustments during pregnancy and delivery. 7 references. (Author abstract modified)

155043 Schou, M.; Amdisen, A. Psychopharmacology Research Unit, Aarhus University Institute of Psychiatry, 8240 Risskov, Denmark Lithium and pregnancy - III, Lithium ingestion by children breast-fed by women on lithium treatment. **British Medical Journal (London). 5859:138, 1973.**

The ingestion of lithium by children breast fed by women on lithium treatment is studied. The serum lithium concentration of the children was 33-50% the concentration in the nursing woman's serum. Bottle feeding is recommended for children of women on lithium treatment. 4 references. (Author abstract modified)

155205 Rappolt, Richard T., Sr. 4141 Geary #403, San Francisco, CA Use of oral DDT in three human barbiturate intoxications: hepatic enzyme induction by reciprocal detoxicants. **Clinical Toxicology. 6(2):147-151, 1973.**

Three case reports of barbiturate detoxification by oral dichloro-diphenyl-trichloro-ethane (DDT) are presented and hepatic enzyme induction by reciprocal detoxicants is discussed. Three female patients with moderate to massive (3000mg phenobarbital) barbiturate ingestions appeared to improve following oral administration of 5gm technical grade DDT in peanut oil. Although too short a time elapsed between their recovery for true reciprocal detoxicants to induce hepatic enzymes it is suggested that the central nervous system arousal capability of DDT back titrated a sublethal dose of barbiturates. The concept of autogenous detoxicant is discussed. 18 references.

155256 Cooper, T. B.; Simpson, G. M. Rockland State Hospital, Orangeburg, NY Lithium and the thyroid: current findings in man. **Psychopharmacology Bulletin. 9(3):30-31, 1973.**

Findings on thyroid stimulating hormone (TSH) level increase and goiter development in patients treated with lithium are presented. It is concluded that the effect of lithium on the thyroid is a side-effect that cannot be corrected by the administration of thyroid hormone without discontinuing medication. 11 references.

155264 Fink, Max. Health Sciences Center, State University of New York, Stony Brook, NY Cross-cultural opportunities and problems in studies of chronic hashish users in Greece. **Psychopharmacology Bulletin. 9(3):38, 1973.**

Opportunities and difficulties of studies of chronic hashish users in Greece are presented, with discussion of a study using 38 chronic smokers. It is concluded that although no CNS damage was found, tolerance, psychological test deficits, and questions regarding pulmonary effects were sufficient to warrant an extension of the study.

155753 Locket, Sidney. North-East Metropolitan Regional Poisoning Center, Oldchurch Hospital, Romford, Essex, England Poisoning by the barbiturates, and a variety of hypnotics and sedatives. **Practitioner (London). 210(1260):836-842, 1973.**

Diagnosis and care of poisoning by barbiturates and other drugs are presented. Barbiturates remain the main cause of suicide and accident drug deaths. Methaqualone, salicylate, glutethimide, meprobamate, and various other tranquilizers are also contributors. Initial evaluation of the patient should include an assessment of vital signs and neurological status. Because of the danger of depression to the respiratory mechanism, adequate ventilation must be insured insured. Likewise, circulatory insufficiency can be induced by accompanying vasomotor depression and shock. After cardiac status is stabilized, removal of the drug from the body by lavage, gastric aspiration, and diuresis can be undertaken. Psychiatric and social aspects of drug ingestion are considered. Symptoms that might differentiate various drugs are discussed. It is concluded that intensive care in a unit where the director shows a particular interest in clinical toxicology will yield the best results. 8 references.

155760 No author. no address M.D.'s cautioned on antiparkinson drugs. **Tufts Health Science Review. 3(2):53-55, 1973.**

Justification for the prophylactic administration of antiparkinson drugs to psychiatric patients as a prevention of possible extrapyramidal side effects to psychotropic drugs is questioned. Studies revealed that in many causes a patient showed a higher incidence of certain extrapyramidal symptoms with the antiparkinson drug, and as the antispasmodic drugs take effect rapidly, it is suggested that they be used only when necessary.

155888 Keskiner, Ali; Toumi, Ahmed El; Bousquet, Theodore. Section of Behavioral Research and Rehabilitation, Missouri Institute of Psychiatry, St. Louis, MO Psychotropic drugs, diabetes and chronic mental patients. **Psychosomatics. 14(3):176-181, 1973.**

The incidence of diabetes mellitus among hospitalized psychiatric patients, the relationship of psychotropic drugs and variations in blood sugar levels, and the correlations between psychopathology and blood sugar levels variations were studied. Results indicate that undiagnosed diabetes among psychiatric patients receiving chemotherapy presents a challenge to clinical psychiatrists. 17 references.

155994 no author. no address Recent advances in psychotherapeutic drugs and their side effects: a symposium. **Psychiatric Annals. 3(7):43, 47-49, 53-55, 58-59, 62-64, 68-71, 75-78, 1973.**

Recent advances in psychotherapeutic drugs and their side-effects are discussed in a symposium. Dibenzothiazines in the management of schizophrenia and side-effects such as hepatic bilary stasis from the aliphatic phenothiazines are covered. The major value of lithium seems to be in the prevention of manic states rather than their treatment. The antidepressants, monoamine oxidase inhibitors and tricyclic antidepressants, are discussed. Psychotic symptoms as a complication of imipramine (Tofranil) therapy and the relation of lysergic acid diethylamide (LSD) to monoamines are covered. Use of neuroleptic drugs in the community care of schizophrenic patients in England is discussed. Antipsychotic drugs and late-appearing dyskinesia are covered. Vitamin therapy, agranulocytosis with long acting neuroleptic injectables, treatment of tardive dyskinesia, fluphenazine enanthate and decanoate for constant medication, and effects of lithium on spermatogenesis are briefly covered.

156069 Oakley, Godfrey P., Jr. Epidemiology Program, Center for Disease Control, Health Services and Mental Health Administration, Atlanta, GA The neurotoxicity of the halogenated hydroxyquinolines: a commentary. **Journal of the American Medical Association. 225(4):395-397, 1973.**

Neurotoxicity of the halogenated hydroxyquinolines is studied. The etiologic agent of an epidemic of 10,000 cases of a gastrointestinal neurologic syndrome, subacute - myelo - optic neuropathy (SMON) in Japan was not identified for 10 years. Iodochlorhydroxyquin was identified as the agent. Japan was the only scene of an epidemic but other countries had many similar cases of SMON. The largest group of Americans who take these drugs do so to prevent diarrhea while abroad. Symptoms range from minimal dysesthesia to death and include optic atrophy. Travelers are advised to avoid buying over the counter remedies for diarrhea. 25 references.

156153 Gerald, Michael C.; Schwirian, Patricia M. Division of Pharmacology, Ohio State Univ., 500 W. 12th Ave., Columbus, OH 43210 Nonmedical use of methaqualone. **Archives of General Psychiatry. 28(5):627-631, 1973.**

The patterns and pharmacological effects of the nonmedical use of methaqualone (Sopors), a nonbarbiturate sedative hypnotic, were determined in 66 respondents (median age 22 to 25) residing in Columbus, Ohio. Sixty percent tool this drug at least weekly, with 10% once or more daily. The mean duration of drug use was 1 year, with 20% in excess of 2 years. The average single and total daily doses taken orally, were 530 and 724mg, respectively; marihuana and alcohol were commonly used concurrently. The major effects of methaqualone use were euphoria, relaxation, and relief from anxieties; paresthesia was frequently reported. About 33% of the subjects developed varying degrees of psychological and physical dependence after long-term drug administration. The abuse and complications of acute methaqualone toxicity are reviewed and the relative therapeutic utility of this drug is questioned in view of these major problems. 26 references. (Author abstract)

156156 Erwin, C. W.; Gerber, C. J.; Morrison, S. D.; James, J. F. Box 2921, Duke Univ. Medical Center, Durham, NC 27710 Lithium carbonate and convulsive disorders. **Archives of General Psychiatry. 28(5):646-648, 1973.**

The safety of lithium carbonate with respect to convulsive disorders was studied in 17 state hospital patients. Fifteen were severe epileptics, poorly controlled clinically with standard anticonvulsants and one had been well controlled; one patient had an abnormal electroencephalogram (EEG) with no clinical history of seizure activity. All were administered lithium carbonate for a 6-week period. Serum lithium ion levels were determined prior to each EEG during the study period and maintained between 0.6and 1.25mEq/liter. There was only one instance of increased clinical seizure activity, while 10 of the 16 seizure patients showed a clear reduction of seizure frequency. EEG changes paralleled clinical findings with one exception. Status epilepticus was not encountered and only one patient had more seizures (4.0/month) during the lithium carbonate treatment period than during the baseline period (1.8/month). 18 references. (Author abstract modified)

156157 Glassman, Alexander H.; Perel, James M. New York State Psychiatric Institute, 722 W. 168th St., New York, NY 10032 The clinical pharmacology of imipramine: implications for therapeutics. **Archives of General Psychiatry. 28(5):649-653, 1973.**

The metabolism and pharmacodynamics of imipramine hydrochloride are examined with specific emphasis on their relationship to the marked individual variability seen in this class of drugs and the relationship of this variability to clinical effectiveness. The plasma level resulting from a standard oral dose can be markedly increased or decreased by the concomitant administration of numerous usually used medications. This is a significant and commonly unrecognized problem, which compounds the genetic variability inherent in these durgs. 49 references. (Author abstract modified)

156324 Boston Collaborative Drug Surveillance Program. Boston Collaborative Drug Surveillance Program, 400 Totten Pond Road, Waltham, MA 02154 Drug-induced extrapyramidal symptoms. A cooperative study. **Journal of the American Medical Association. 224(6):889-891, 1973.**

A report is presented which describes the frequency of extrapyramidal symptoms (EPS) in a medical inpatient population. The frequency of EPS was determined in patients taking prednisone and various combinations of the phenothiazines, the tricyclic antidepressants, and the butyrophenones. EPS was found to occur in about 1% of the general medical patients treated with these drugs. The drug most likely to produce these symptoms is trifluoperazine hydrochloride. There is a suggestion that the tendency for these drugs to produce these symptoms is enhanced in persons with systemic lupus erythematosus or in persons taking prednisone. In all of the patients with EPS, the symptoms disappeared with termination of the drug therapy. 9 references. (Author abstract modified)

156527 Titus, Robert J. Pennsylvania State Univ., University Park, PA Lysergic acid diethylamide: its effects on human chromosomes and the human organism in utero. A review of current findings. **International Journal of the Addictions. 7(4):701-714, 1972.**

A review of the findings of current studies dealing with the effects of lysergic acid diethylamide (LSD) on human chromosomes, in vivo and in vitro, and on the human organism in utero is presented. The studies to date indicate that LSD causes negligible damage to the chromosomes of lymphocytes; however, there is evidence to support the hypothesis that LSD may have adverse effects on the normal development of humans in utero. All studies with LSD and human chromosomes to date have been concerned with visible damage that chromosones may incur; however, LSD may cause irreparable damage to various parts of the body or impair the functioning of chromosomes without actually breaking the chromosomes. Teratogenic effects which may have been due to the use of LSD are reported. The need for further research in this and other areas before the question of whether LSD damages human chromosomes and the body in general can be answered conclusively is emphasized. 19 references.

156551 Markiewicz, Konstanty; Trznadel, Kazimierz; Cholewa, Marian. Katedra i III Klinika Chorob Wewnetrznych. AM ul. Zeromskiego 113, 90-542 Lodz, Poland /Acute chlorpromazine poisoning./ Ostre zatrucie fenaktylem. **Wiadomosci Lekarskie (Warszawa). 26(7):609-613, 1973.**

The clinical course and therapeutic results of 36 cases of chlorpromazine intoxication are described. The group consisted of 26 women (average age 29.1years) and 11 men (average age 32 years). They constituted 2.6% of all cases of poisoning treated at this clinic. Hospital stay

varied between 1 and 11 days with an average of 4.5days. Two patients died. Twenty two, mainly psychotics and neurotics were poisoned with chlorpromazine alone, six with a combination of the drug and a barbiturate and nine with chlorpromazine and a variety of other agents. The ingested dose varied from 125 to 5000mg. Coma or deep stupor occurred in all subjects and lasted over 48 hours in two, over 24 hours in four patients. Absence of reflexes and reaction to external stimuli was present in 65%, accelerated cardiac activity in 60%, rapid and shallow breathing in 55%, drop in blood pressure to below 100 Hg/mm in 27%, cyanosis in 27%, tonic-clonic seizures in 20%, shock in 15%, mild and transient cholestatic jaundice in 10%, transient renal failure in 10%. Coma was more severe and lasted longer in all patients who also ingested barbiturates or alcohol and was milder in those who had also taken a tonic. Treatment included intramuscular administration of 20mg of furosemid at 2-hour intervals or a 20% mannitol solution. In addition analeptic drugs, alkalizing agents and vitamins were administerd to all patients. 19 references.

156568 Reichowa, Janina; Goldsztajn, Mieczyslaw. Klinika Neurologii, Instytut Neurologii, Akademia Medyczna, Krakow, Poland /Mental disorders in the course of L-dopa treatment./ Zaburzenia psychiczne w przebiegu leczenia L-dopa. **Psychiatria Polska (Warszawa). 7(1):87-89, 1973.**

The case of a 58-year-old man with Parkinson's disease who developed psychotic disturbances during therapy with L-dopa is described. The symptoms appeared 14 days after reinstitution of interrupted therapy, when the dose of the drug reached 5g per day. They included anxiety, psychomotor excitation, auditory and visual hallucinations and delusions and coincided with intensification of involuntary movements. The patient lapsed into stupor, developed circulatory disturbances and died 9 days after interruption of therapy. Autopsy revealed generalized arteriosclerosis and pneumonia. No macroscopic changes in the brain were detected. The similarity of psychic disturbances induced by large doses of L-dopa to those seen in comatose brain inflammations is discussed. 9 references.

156569 Firko, Marek; Matuszewicz, Tadeusz. Wojewodzki Szpital Chorob Ukladu Nerwowego, Lubiaz, Poland /The influence of psychotropic drugs on the genetic cell material./ Wplyw lekow psychotropowych na material genetyczny komorki. **Psychiatria Polska (Warszawa). 7(1):91-94, 1973.**

A discussion is presented on the mechanism and importance of mutagenic effects of psychotropic drugs. Both the somatic and reproductive cells can be affected by chemical mutagens. It is usually assumed that the degree of biological damage is proportional to the severity of chromosomal aberrations cytogenetically detectable. The basic mechanism of mutagenic action is the direct or indirect reaction with DNA or RNA, which results in changes in proteins synthesized by the cell. Every agent affecting the genetic code will ultimately have an indirect effect on biochemical processes on a molecular level. It can be assumed, therefore, that in addition to severe detectable chromosomal aberration, less severe undetected changes in genetic structures exist on a molecular level which also lead to pathologic protein synthesis. In the nerve cell, a defectively structured protein will lead to disturbances in the cell function, its permanent damage or death. The selective affinity of nerve tissue to psychotropic drugs thus can result in degeneration, necrotization or functional inactivation of brain cells causing psychopathologic or neurologic defects. 10 references.

156641 Ellenhorn, Matthew J. Beverly Hills, CA Overdosage and/or poisoning--the information gap. **Journal of Clinical Pharmacology. 13(5-6):181-189, 1973.**

The response of the United States pharmaceutical industry to a request for information regarding the signs, symptoms, and treatment of overdosage and/or poisoning with drugs available to practicing physicians was investigated. About 39.6% of the pharmaceutical manufacturers contacted responded to the request for information, with replies being received on an average of 18 days following the date of delivery of the original request. The replies consisted of letters, brochures, package inserts describing some of the manufacturer's products, and/or compilations of data concerning overdosage and/or poisoning. It is concluded that at present the pharmaceutical industry, the Federal Government, and other professional organizations do not provide sufficient, updated poisoning and/or overdose information to the physician. An additional regulation under the Food, Drug and Cosmetics Act would be required to initiate the flow of such information from the pharmaceutical industry to the physician. Ultimately, however, this is a task

which requires the unified cooperative involvement of the practicing physician, the academic world, and federal, state, and local governments, as well as the pharmaceutical industry. 25 references. (Author abstract modified)

156754 Saker, B. M.; Musk, A. W.; Haywood, E. F.; Hurst, P. E. Renal Unit, Royal Perth Hosp., Box X 2213, Perth, W.A. 6001, Australia Reversible toxic psychosis after cephalexin. **Medical Journal of Australia (Sydney). 1(10):497-498, 1973.**

The case of a 46-year-old woman with moderately severe uremia and suspected bacterial endocarditis, who developed convulsions and a toxic confusional state following the administration of cephalexin is reported. The patient's mental picture included confusion, disorientation, a fluctuating level of consciousness, and ill sustained paranoid delusions. These changes were noted following the administration of a total of 5g of cephalexin over a period of 3 days. Her serum cephalexin level was estimated at 120 microg/ml prior to the administration of the fourth gram of the drug. Following the termination of the cephalexin treatment, the patient's mental status improved steadily to reach a normal pattern within 10 days of the onset of the abnormal symptoms. Cephalexin treatment was resumed shortly after her return to normal, but the serum levels were kept low; no further alterations in her mental status were noted. It is suggested that caution be used in setting dosages with cephalexin, particularly in patients with renal insufficiency. 14 references.

157037 Sandoval, Raynaldo G.; Wang, Richard I. H. Medical College of Wisconsin, Wood Veterans Administration Hospital, West National Ave. at 54th St., Wood, WI 53193 Characteristics of pentazocine dependence in hospitalized patients after naloxone administration. **Psychopharmacologia (Berlin). 30(3):205-215, 1973.**

In a double-blind study, saline and a narcotic antagonist, naloxone, were given on separate days to eight patients who had been receiving parenteral pentazocine daily for at least 1 month. The abstinence score following naloxone administration was markedly different from that after saline. The withdrawal symptoms in the group receiving 180mg or less of pentazocine per day were not unpleasant, while marked dysphoria was observed in the high dose group. The results suggested that patients receiving over 180mg of pentazocine daily for at least 1 month tend to develop physical dependence of the narcotic type. It is also revealed that abstinence syndrome after naloxone can appear in those taking average therapeutic doses of pentazocine when given for at least 1 month. It is suggested that caution should be taken in giving parenteral pentazocine in doses over 180mg per day for prolonged periods of time. 15 references. (Author abstract)

158153 Graebner, Robert W.; Herskowitz, Allan. Division of Neurology, School of Medicine, University of Washington, Seattle, WA 98195 Cerebellar toxic effects from nitrofurantoin. **Archives of Neurology. 29(3):195-196, 1973.**

Progressive peripheral neuropathy and cerebellar dysfunction in a 73-year-old man apparent during prolonged therapy with nitrofurantoin is discussed. The patient was treated for prostatitis with a prolonged course of nitrofurantoin, 400mg daily for 15 weeks. After 11 weeks, the patient noted the onset of paresthesias of the hands and feet and then cramping of the extremities. Upon discontinuation of the therapy paresthesias of the upper extremities disappeared. Tremor of the upper extremities and dysesthesias of the lower extremities persisted. Diphenylhydantoin sodium and nitrofurantoin are both hydantoin compounds with similar toxicities. Similar physiological effects have been noticed from administration of both drugs. Physicians should not use nitrofurantoin in patients with renal insuffiency and should consider nitrofurantoin toxicity as a potential cause of polyneuropathy and cerebellar impairment. 18 references. (Author abstract modified)

158176 Baldessarini, Ross J.; Lipinski, Joseph F. Massachusetts General Hospital, Boston, MA 02114 Risks vs. benefits of antipsychotic drugs. **New England Journal of Medicine. 289(8):427-428, 1973.**

Standards are discussed for usage of antipsychotic drugs including: anticipation of late-occurring dyskinetic phenomena, the restriction of dosages to the lowest effective levels, and regular reevaluation of the need for drug therapy by trial periods off medications. The emphasis on return of patients to the community has led to maintaining chronic psychotic patients out of the hospital on drug therapy. Neuroleptic drug therapy can lead to agranulocytosis, liver dysfunction, eye damage, cardiovascular complications, or other neurological problems. Complications can occur gradually and are often irreversible. Responsible

administration of drugs is a necessity. 7 references.

158261 Davis, John M.; Janowsky, David S.; Carroll, Bernard J.; Davis, Judith M. no address Clinical pearls: overdose of psychotropic drugs. **Psychiatric Annals. 3(6):6, 10-11, 1973.**

Recent clinical experience with phenothiazines and monamine oxidase inhibitors is reviewed, and their toxicity and interaction with other drugs is discussed. Alternate treatments for overdose are indicated with particular emphasis on the toxic possibilities of imbibing very large quantities of psychotropic agents prescribed by a patient's physician. 35 references.

158264 American College of Neuropsychopharmacology - Food and Drug Administration Task Force. University of Minnesota Medical School, St. Paul, MN Drug therapy: neurologic syndromes associated with antipsychotic-drug use. **New England Journal of Medicine. 289(1):20-23, 1973.**

Current knowledge of tardive dyskinesia is reviewed and contrasted with other neurologic conditions associated with antipsychotic drug use. Twenty two antipsychotic agents are listed by commercial and generic name. Three better known and more common extrapyramidal disorders, acute dystonias, akathisias, and Parkinsonism, are described and differentiated from tardive dyskinesia. The characteristic features, diagnosis, etiology, early detection and treatment of tardive dyskinesia are discussed. The necessity for the use of antipsychotic agents is emphasized with recommendations for practical measure to prevent extrapyramidal side effects.

159348 Schiele, Burtrum C.; Gallant, Donald; Simpson, George; Gardner, Elmer A.; Cole, Jonathan O. no address Tardive dyskinesia: a persistent neurological syndrome associated with antipsychotic drug use. **Annals of Internal Medicine. 79(1):99-100, 1973.**

Tardive dyskinesia, a syndrome characterized by rhythmical, involuntary movements of the tongue, face, mouth or jaw, is a persistent neurological disorder associated with antipsychotic drug use. The phenothiazines, thioxanthenes and butyrophenones are implicated. Diagnosis may be made after drug withdrawal. Treatment and preventive measures are outlined. A list of antipsychotic drugs in current use is included. (Author abstract modified)

159552 Claveria, L. E.; Calne, D. B.; Allen, J. G. Department of Medicine (Neurology), Royal Postgraduate Medical School, London W12 OHS, England 'On-off' phenomena related to high plasma levodopa. **British Medical Journal (London). 2(5867):641-643, 1973.**

The neurological deficit and plasma concentrations of levodopa have been studied in a Parkinsonian patient experiencing on - off phenomena. Blind evaluations of transient attacks of dysphonia revealed an association between episodes of neurological deterioration and exceptionally high plasma concentrations of levodopa shortly after ingestion. These results indicate that on - off phenomena can be toxic reactions to levodopa rather than deteriorations due to inadequate intake or absorption of the drug. Management of patients subject to such attacks should be aimed at minimizing fluctuations in the serum level of the drug. 11 references. (Author abstract)

159588 Locket, Sidney. North-East Metropolitan Regional Poisoning Centre, Oldchurch Hospital, Romford, Essex, Great Britain Clinical toxicology VII. Poisoning by salicylates, paracetamol, tricyclic antidepressants and a miscellany of drugs. **Practitioner (London). 211(1261):105-112, 1973.**

Poisoning by salicylates, paracetamol, tricyclic antidepressants, monoamine oxidase inhibitors, amphetamines, fenfluramine, household bleaching agents, caustic substances, and digitalis preparations is discussed. Symptoms and treatment of the various types of poisoning are given. 19 references.

160138 Antonini, F.; Baroni, A.; Bucalossi, A., Roveyaz, L. Inst. of Gerontology, University of Florence, Florence, Italy /Observations of L-dopa treatment and of its side-effects in the aged./ Etude du traitement a la L-dopa et de ses effets collateraux principaux chez les sujets ages. **Gerontologia Clinica (Basel). 14(5):297-309, 1972.**

The use of L-dopa in patients with Parkinson's disease admitted to a geriatric rehabilitation center was studied. Results indicated an improvement in the general performance and particularly in the depressive state accompanying the disease. Observations of the side-effects confirmed the difference between these and the toxic effects particularly of the organic type of mental confusion especially serious when observed in the

course of acute infective episode; the dose of L-dopa was subsequently reduced. Mental changes of a different type were found only in patients with a previous mental history. Gastric intolerance always required a reduction of the dose used. An accentuation of bone pain probably due to increased mobility was evidenced and vaginal bleeding was also observed. 12 references. (Journal abstract modified)

160147 Jounela, A. J.; Kivimaki, T. Helsinki University Hospital, Helsinki, Finland Possible sensitivity to meperidine in phenylketonuria. **New England Journal of Medicine. 288(26):1411, 1973.**

In a letter to the editor an analogy reaction to meperidine in a case treatment of a mentally retarded bedridden phenylketonuric patient is described. A male homozygote 27-year-old patient was treated with L-dopa at doses up to 100mg/kg daily to increase his activity. The treatment was replaced after a few months, after no results, by 2mg/kg monoamine inhibitor nialamide daily. Increased heartrate and other symptoms were observed. The results of this human case study, that nialamide seemed to potentiate meperidine effects, is compared to excitation reactions observed in rabbits and mice. Reference is also made to another well documented case report dealing with a series of unfavorable reactions to monoamine oxidase. 5 references.

160690 Drake, Miles E.; Drake, Miles E., Jr. 947 North Main Road, Vineland, NJ Unexpected effects related to interactions of drugs in pediatric use. **Journal of the Medical Society of New Jersey. 70(8):579-580, 1973.**

Knowledge of specific examples of diminished drug effect, due either to accelerated biotransformation of drugs in vivo or to elevated levels of a second drug resulting from interference with the breakdown of the second drug, should alert all physicians to the possibilities of other adverse reactions. Phenobarbital has been shown to enhance the metabolism and degradation of diphenylhydantoin resulting in diminished anticoagulant activity of the drug. A genetic defect in parahydroxylation of diphenylhydantoin, giving rise to a continuous accumulation of unmetabolized dephenylhydantoin in the blood, has also been reported. It is to be anticipated that other types of adverse drug reactions will occur in pediatric pharmacology, primarily producing neurologic symptoms or affecting the nervous system. 7 references. (Author abstract modified)

160942 no author. no address Psychiatric complications of medical drugs. **Medical Journal of Australia (Sydney). 1(26):1263-1264, 1973.**

Psychiatric complications of medical drugs such as isoniazid and prednisone, corticosteroids, reserpine, and oral contraceptives, L-dopa, digitalis, and anticholinergic drugs are discussed. It is noted that hallucinations, delusions, psychosis, hypomania or depression may be precipitated with no discernible predisposing factor or history of psychiatric illness. Some psychotoxicity is followed by life threatening cardiac arrythmias. It is concluded that these drugs have abuse potential and some questionable use but that pharmacological research has led to the growing understanding of the importance of genetics in drug metabolism. 4 references.

160965 Westlake, Robert J.; Rastegar, Asghar. no address Hyperpyrexia from drug combinations. **Journal of the American Medical Association. 225(10):1250, 1973.**

Three cases illustrating hyperpyrexia in patients treated with a combination of antiparkinson and antipsychotic medications and exposed to high ambient temperature and humidity are presented. An important side effect of phenothiazine-anticholinergic combination is interference with the body thermoregulatory system. Antiparkinson and other similar atropinic drugs are known to produce fever by inhibition of sweating. It is concluded that an awareness of this problem could prevent exposure of patients to other unnecessary drugs such as antibiotics, and result in more conservative management. Other suggestions are made to physicians and psychiatrists. 3 references. (Author abstract modified)

161357 no author. no address Weighing evidence that links epilepsy drugs to fetal defects. **Medical World News. 14(15):23, 27, 1973.**

Studies which link anticonvulsant drugs, taken by pregnant epileptics, to birth defects were reviewed. Barbiturates and hydantoin preparations have been blamed for the incidence of congenital defects. Congenital malformations in children born to epileptics are three times higher among those women taking drugs, according to one study. Some malformations that are not life-threatening nor untreatable appear on the hand or face, but more serious incidents of hernia, hip dislocation, cleft lip and palate, have also been reported. Perinatal mortality rates can also increase

with these medications. The dangers to the convulsatory expectant mother of not taking the drugs are discussed. It is concluded that further studies of the possible teratogenicity of the agents have been recommended by more than one specialist. 4 references.

161788 Seeler, Ruth Andrea. Pediatric Hematologist, Cook County Hospital, Chicago, IL Accidental ingestion: methadone, propoxyphene (Darvon), or diphenoxylate (Lomotil) poisoning. **Illinois Medical Journal. 144(1):34-35, 73, 1973.**

Overdose toxicity of common medications frequently ingested accidentally by children is reviewed with a brief discussion of symptomology and therapy. These substances include methadone, propoxyphene (Darvon) and dephenoxylate and atropine (Lomotil). The toxicity of the drugs is particularly important since they are narcotic derivatives and an overdose produces all the symptoms of morphine and heroin overdose. Therapy, however, is highly successful if administered promptly. Prompt treatment with the narcotic antagonist naloxone (Narcan) produces dramatic results, but is of short duration effect, and must be readministered if symptoms reoccur. Patients should always be observed in the hospital for this possibility. Recommended dosage is 0.01mg/kg given intravenously or intramuscularly. 10 references.

162361 Keegan, David L.; Rajput, Ali H. Dept. of Psychiatry, Univ. of Saskatchewan, Saskatoon, Saak., Canada Drug induced dystonia tarda: treatment with L-dopa. **Diseases of the Nervous System. 34(3):167-169, 1973.**

A case of drug induced chronic dystonia tarda with unsuccessful treatment with L-dopa is reported. The patient, a 45-year-old woman, developed the syndrome following long-term phenothiazine treatment in conjunction with lobotomy and electroconvulsive therapy. She showed no improvement following treatment with tolerable doses of L-dopa. A review of the literature indicates that tardive dystonias, dyskinesias, and other neurological sequelae of long-term phenothiazine use are resistant to most forms of therapy. The optimism recently shown regarding the use of L-dopa and amantidene has been found at present to be unfounded. It is concluded that the most useful treatment of this disorder is prevention; physicians should be watchful for the neurological sequelae of phenothiazine use and cautious in the use of long-term, high dosage phenothiazine treatment. 22 references. (Author abstract modified)

163011 no author. no address Comparing teratogenicity in man and monkey. **Medical World News. 14(35):74, 1973.**

A comparison of teratologic reactions in humans and rhesus monkeys is presented in which several anticonvulsants were found to produce a low level of developmental defects in the monkeys. Both man and monkeys seem to show a low level of embryotoxic susceptibility and teratogenicity to diphenylhydantonin and trimethadione. The same does not hold true for the folic acid antagonist, methotrexate, since it is less embryotoxic in monkeys than in man. The study also confirms earlier reports that the acne medicine, retinoic acid, is both embryolethal and teratogenic in nonhuman primates, but it is still unknown how accurately simian primates reflect the teratogenic sensitivities of the human embryo.

163202 Oppenheim, Gerald. Pacific House, St. George Hospital, Kogarah, New South Wales, 2217, Austrailia Mutism and hyperthermia in a patient treated with neuroleptics. **Medical Journal of Australia (Sydney). 2(5):228-229, 1973.**

A case report of a 38-year-old man who developed a syndrome of progressive mutism and disintegration of mental functions, which was brought to attention coincidentally, because of the occurrence of another potentially life threatening complication of neuroleptics, hyperthermia, is reported. It is suggested that there be a greater general awareness of the side-effects of neuroleptics, particularly the permanent ones, such as tardive dyskinesia, and the potentially fatal ones, such as hyperthermia and agranulocytosis. 3 references.

163694 Harper, Richard W.; Knothe, Barbara U. C. Royal Melbourne Hospital, Gratton Street, Parkville, Victoria, 3034, Australia Coloured Lilliputian hallucinations with amantadine. **Medical Journal of Australia (Sydney). 1(9):444-445, 1973.**

Use of amantadine in Parkinson's disease is discussed. Colored Lilliputian hallucinations are reported in three patients with Parkinsonian symptoms who were taking both amantadine and an anticholinergic drug. In one case, the hallucinations may have been precipitated by the introduction of L-dopa. Hallucinations are explained by a selective effect of amantadine on the visual

pathways. It is suggested that amantadine prevents the uptake of dopamine by basal ganglia synaptosomes, thus increasing the availability of dopamine. 14 references.

164218 Plotkin, Daniel A.; Plotkin, David; Okun, Ronald. Cedars-Sinai Medical Center, Los Angeles, CA Haloperidol in the treatment of nausea and vomiting due to cytotoxic drug administration. **Current Therapeutic Research. 15(9):599-602, 1973.**

The neuroleptic agent, haloperidol, was evaluated as an oral antiemetic in 17 cancer patients with nausea and vomiting resulting from administration of cytotoxic drugs. Within 2 hours of oral administration of 1 or 2mg of haloperidol, both the severity of nausea and the frequency of vomiting was reduced by about 60%. After haloperidol treatment was begun, further attacks of vomiting generally occurred only 6 or more hours after the previous dose of haloperidol, suggesting that the antiemetic effect was decreasing. In the doses of haloperidol used, no adverse reactions were observed and no significant changes occurred in vital signs. 4 references. (Author abstract modified)

165463 Greenblatt, David J.; Shader, Richard I. Massachusetts General Hospital, Boston, MA 02114 Drug therapy: anticholinergics. **New England Journal of Medicine. 288(23):1215-1219, 1973.**

The current uses of anticholergic drugs such as scopolamine, atropine synthetic anticholinergics, nonquaternary compounds, and other drugs with anticholinergic properties in clinical medicine are critically reviewed. Use of these drugs in anesthesia, cardiac disease, gastrointestinal disease, vestibular disorders, basal ganglion disorders and opthamology, as well as their side effects, are examined. Other topics considered include: uses as proprietary hypnotics, anticholinesterase and muscarine poisoning, other uses of the drugs and theri toxicity. 22 references.

165567 Zwerdling, Daniel. 6025 Western Ave., NW, Washington, DC 20015 Bed-wetters and the perilous pill. **Washington Post. August 19:C3, 1973.**

Risks, doubtful benefits, and noxious side-effects in using tofranil and some other tranquilizers to treat bed wetting in children are discussed. Risks involve overdoses that are difficult to treat or neutralize. Dialysis or stomach pumping cannot help, because tofranil is so rapidly absorbed from the gastrointestinal tract and quickly binds to tissues in the heart and brain after ingestion. Benefits are doubtful and controversial at best; and cure is usually only temporary, lasting no longer than 3-4 weeks. Behavioral conditioning techniques have proved more effective and more nearly permanent. Tofranil affects the endocrine system in young girls and with that, their physical and psychological growth. A case is cited of a 7-year-old girl who developed enlarged breasts, pubic hair, and other indications of puberty after taking the drug. Pressures by drug firms (Ciba-Geigy) and some doctors finally secured FDA approval for the use of tofranil in children in April 1973, but all the risks and serious implications were not fully understood.

165745 Maudlin, Robert K. Washington State University, Spokane, WA Drug-induced diseases. **Journal of the American Pharmaceutical Association. NS13(6):316-322, 1973.**

Various means in which drugs may induce diseases are examined, and specific examples given. These means include: overdosage, drug interactions, secondary effects, idiosyncrasy, and hypersensitivity. Systemic lupus erythematosus is the most prevalent drug induced disease and can be brought on by hydralazine, procainamide, isoniazid, anticonvulsants and various other drugs including oral contraceptives. 41 references.

166033 Wolf, Sheldon M.; Davis, Richard L. 1526 N. Edgemont Street, Los Angeles, CA 90027 Permanent dementia in idiopathic parkinsonism treated with levodopa. **Archives of Neurology. 29(4):276-278, 1973.**

An acute confusion hallucinatory syndrome followed by stupor and permanent dementia, is described in a patient with mild idopathic parkinsonism receiving trihexyphenidyl, amantadine and levodopa. During stupor, the patient's eyes were divergent, with absent oculocephalic reflexes. There were no abnormalities of other cranial nerve functions or long tract signs. Intravenous doses of pyridoxine were of no benefit. The electroencephalogram was diffusely slow. Results of laboratory studies were unremarkable, except for mild hydrocephalus ex vacuo. Neuropathological changes include depigmentation, neuronal loss, gliosis and Lewy bodies in the substantia nigra, mild hydrocephalus, mild atherosclerotic changes in basilar and carotid arteries, and a few tiny cerebellar infarcts. Pathological change did not explain the acute illness. The patient was alert but

profoundly demented until his death 4 months after onset of the syndrome. 26 references. (Author abstract modified)

166735 Waggoner, W. C.; Gagliardi, Vincent J.; Lund, Mark H.; Weaber, Thomas H. Wallace Pharmaceuticals, Cranbury, NJ Excessive reaction to methaqualone HCl during bioavailability study. **Clinical Toxicology. 6(3):317-323, 1973.**

An excessive reaction to methaqualone HCl in a bioavailability study is reported. A 22-year-old, 146 pound male ingested 400mg of methaqualone HCl, which resulted in peak blood levels more than twice that of the average of the other six subjects. Clinically, the drug experience involved the impression of convulsive tendencies, sweating, and shortness of breath. For slightly more than a 5 hr period he experienced a period of amnesia, which began about 1 hour and 15 minutes after drug ingestion. 9 references. (Author abstract)

166978 Malm, Ulf. Klin. II, Lillhagens sjukhus, Box 3005, 422 03, Hisings-Backa 3 Sweden /Treatment of extrapyramidal side-effects in neuroleptic therapy./ Behandling av extrapyramidala biverkningar vid neroleptika-behandling. **Nordisk Psykiatrisk Tidsskrift (Odense, Denmark). 26(6):348-350, 1972.**

Eight treatments used to cope with the extrapyramidal syndromes often resulting from neuroleptic treatment of schizoid patients, including parkinsonism, dystonia, and dyskinesia, are discussed. Antiparkinsonian treatment is mentioned. Selected new drugs and their application are discussed. L-dopa has on several occasions accentuated extrapyramidal symptoms; amantadine can in certain cases be used as an alternative; dopamine receptor blocking agents such as pimozide and fluspirilen have been reported effective in tardive dyskinesia, and tests with tetrabenazine have shown good results. Clinical experiences with a new neuroleptic, clozapine, show that it is possible to produce neuroleptics with few or not extrapyramidal side-effects.

167087 Lewicka-Wysocka, Hanna. Adademia Medyczna, Klinika Psychiatryczna, ul. Nowowiejska 27, Warsaw, Poland /Damage to the central nervous system in the course of neuroleptic treatment./ Uszkodzenie osrodkowego ukladu nerwowego w przebiegu leczenia neuroleptycznego. **Psychiatria Polska (Warszawa). 6(1):87-91, 1972.**

Damage to the central nervous system induced by poor psychotropic drug tolerance is discussed. The case history of a 21-year-old male with paranoid schizophrenia on maximal daily dosage of phenactyl (500mg), nozinan (500mg), and trilaphone (52mg) is covered. While no improvement occurred in the patient's mental state, side-effects brought on Parkinsonism and motor disturbances. The dosage was lowered, trilaphone was phased out and substituted with triphtazine. The patient exhibited intensified extrapyramidal symptoms which led to irreversible brain damage and finally death. Care in selecting these drugs and regular monitoring is suggested. 12 references.

167246 Curry, A. S. no address Advances in forensic and clinical toxicology. Cleveland, C.R.C. Press, 1972. 280 p. $32.50.

The state of the art in the field of forensic and clinical toxicology is reviewed. Extensive sections are devoted to common household and industrial toxins along with very detailed treatments of cannabis, lysergic acid diethylamide (LSD), morphine, and other compounds under the category of drug abuse. Experimental and automative methods are detailed and discussed for the detection of specific drugs and classes of drugs. Numerous clinical examples of the effects upon humans and animals of the substances covered are presented as well as a discussion of the gross and microscopic abnormalities produced. Moreover, the biochemical actions of the compounds and their effects on cellular function, metabolic processes, and enzyme systems are detailed. The publication will be of interest to anyone who has the occasion to treat or to diagnose any illness related to a chemical toxin. 1500 references.

16 METHODS DEVELOPMENT

152911 Cooper, Thomas B.; Bergner, Per-Erick E.; Simpson, George M. Research Center, Rockland State Hospital, Orangeburg, NY 10962 The 24-hour serum lithium level as a prognosticator of dosage requirements. **American Journal of Psychiatry. 130(5):601-603, 1973.**

A technique is described that enables a physician to determine a patient's lithium dosage requirement on the basis of a single blood sample collected 24 hours after the administration of a 600mg priming dose of lithium. The basis of this technique is described and the importance of ascertaining that the patient has ingested the prim-

ing dose of lithium is emphasized. 3 references. (Journal abstract modified)

155902 Barrett, J.; Smyth, W. Franklin; Davidson, I. E. Chemistry Dept., Chelsea College (Univ. of London), Manresa Road, London, S. W. 3, England An examination of acid-base equilibria of 1,4-benzodiazepines by spectrophotometry. **Journal of Pharmacy and Pharmacology (London). 25(5):387-393, 1973.**

An examination of acid-base equilibria of 1,4-benzodiazepines was made by spectrophotometry. Changes of ultraviolet absorption spectra with pH in solution were used to determine pKa values for six hypnotic tranquilizers. Diazepam, chlordiazepoxide and medazepam as a result of protonation of the molecule in acidic solutions, were found to each have one pKa while two pKa values were observed for oxazepam, nitrazepam and lorazepam because of protonation in acid and deprotonation of the neutral molecule in alkaline media. The spectra are explained by considering them to be superimposed spectra of the two benzene rings, one monosubstituted and one trisubstituted, within the molcule. Sites of protonation and deprotonation are predicted and the differences in the observed pKa values are explained. 9 references. (Author abstract modified)

156938 Brauzer, Benjamin; Goldstein, Burton J. Div. of Research, Dept. of Psychiatry, Univ. of Miami School of Medicine, Box 875, Biscayne Annex, Miami, FL 33152 Symptomatic volunteers: another patient dimension for clinical trials. **Journal of Clinical Pharmacology and New Drugs. 13(2 and 3):89-98, 1973.**

A symptomatic volunteer model, in which the volunteer receives no monetary remuneration, for conducting clinical trials with psychotropic drugs is described. An advertisement in a local newspaper, requesting that individuals with symptoms of anxiety and/or depression participate in clinical trials using minor tranquilizers, included a 35 item self-rating checklist which indirectly assists in describing the symptoms of anxiety and depression for the volunteer. The volunteers are screened first by telephone and then in person by a physician. They then complete a personal history form and the 35 item checklist. About 79% of the population who were initially accepted completed the program. Sixty nine percent of the Ss had received psychotropic drugs in the past. The patients received either placebo or doxepin (Sinequan) or chlordiazepoxide (Librium). Statistically significant differences were detected between active drug and placebo in the total pathology score on the Hamilton Anxiety Scale and the anxiety - guilt - depression cluster of the Brief Psychiatric Rating Scale (BPRS). The BPRS score showed a favorable trend (p is greater than .10) toward the active drug. The advantages of this clinical trial model are compared to those using indigent outpatient clinics. The community service obligations and ethical concerns of the investigation in such clinical trials of psychotropic drugs are discussed. 11 references.

158770 Agurell, Stig; Gustafsson, Bertil; Holmstedt, Bo; Lcander, Kurt; Lindgren, Jan-Erik; Nilsson, Inger; Sandberg, Finn; Asberg, Marie. Faculty of Pharmacy, Box 6804, S-113 86, Stockholm, Sweden Quantitation of delta1-tetrahydrocannabinol in plasma from cannabis smokers. **Journal of Pharmacy and Pharmacology (London). 25(7):554-558, 1973.**

A method to identify and accurately measure nonlabelled delta1-tetrahydrocannabinol (delta1-THC) in blood of cannabis smokers was developed. Deuterated delta1-THC (delta1-THC-d2) is added as an internal standard to a 5ml plasma sample. After extraction with light petroleum and evaporation, the delta1-THC containing fraction is separated by chromatography on Sephadex LH-20 using light petroleum-chloroform-ethanol as eluant. A fraction containing delta1-THC is collected and subjected to mass fragmentography. The mass spectrometer is adjusted to record the intensities of m/e 299 and 314 of delta1-THC and m/e 301 and 316 of delta1-THC-d2. The standard curve was made by plotting peak height m/e 299/m/e 301. Peak levels of 19-26ng/ml were reached within 10 min after smoking a cigarette containing 10mg delta1-THC. 16 references. (Author abstract)

163512 Barrish, Harriet Hazel. University of Kansas Ritalin as the independent variable in a reversal design. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 73-11851 HC$10.00 MF$4.00 76 p.**

A study is presented of Ritalin therapy in a reversal design on target symptoms associated with the syndrome of minimal cerebral dysfunction. Six elementary age boys were subjects in a treatment/baseline/treatment reversal design. Three of the children were on a drug/no/drug/drug design while the others were on a drug/no

drug/drug/placebo/drug design. The reversal design proved to be a realistic research tool for individual psychopharmacological programs and was compatible with the monitoring physician's usual course of procedure in drug therapy. The study provides highly supportive data that Ritalin is a differentially effective agent in some children. The strongest conclusions were based on reversal designs with a placebo condition and reliability checks on ingestion of medication. (Journal abstract modified)

17 MISCELLANEOUS

150040 no author. Defense Documentation Center, Alexandria, VA Hallucinogenic drugs. Springfield, VA, NTIS, AD-753300, 1972. 125 p. PC:$5.45 MF:95 cents.

The bibliography is composed of 73 references on the physiological, psychological, biochemical, and chemical mechanisms of certain hallucinogenic drugs, including lysergic acid, mescaline, psilocybin, bufotenine, cannabis, and hallucinogenic amphetamines. Studies on THC are included. Corporate Author - Monitoring Agency, Subject, Title, Personal Author, Contract Number, and Report Number Indexes are provided. (Author abstract)

150327 Morrison, David; Mayfield, Demmie G. VA Hospital, 508 Fulton St., Durham, NC 27705 Sleep insurance: a valid use of hypnotics? **North Carolina Medical Journal. 33(10):862-865, 1972.**

The use of hypnotic drugs (sleeping aids) was studied in a 500-bed teaching hospital through a 1-year survey of outpatient prescriptions, a 1-year survey of drug requisitions from selected wards, an intensive review of 485 charts of currently hospitalized medical and surgical patients, and interviews with night shift nurses responsible for dispensing sleeping pills. While the quantity of hypnotics dispensed to outpatients and used by the inpatient services were not dramatic, a detailed study revealed that hypnotics were automatically prescribed without regard to history, physical or laboratory findings. Drugs which are not among the general CNS depressant group were recommended, as they are not associated with dependency, tolerance or addiction. The contribution made by physicians to an already disturbing drug orientation in the population was emphasized. 4 references. (Author abstract modified)

150614 Bernstein, Arnold; Lennard, Henry L. Queens College, City Univ. of N.Y., New York, NY Drugs, doctors and junkies. **Society. 10(4):14-16, 18, 20, 22-25, 1973.**

A discussion of drugs, doctors, and junkies concerning the American way of drugging is presented. Interrelations among the systems that affect drug use, including public policy, physicians, communities, social forces, and personal and interpersonal behaviors are outlined. The tendency to identify human problems as a disease and then treat the disease with medication is criticized. Mental health professionals are criticized for the promotion of a model which inevitably leads to the medicalization and technocratization of human existence. The consequences of increased drug taking on group, community, and social levels are examined, along with the implication for public policy toward drugs. The lack of caution in prescribing the long-term use of psychoactive drugs, which has led to the incidence of tardive dyskinesia in mental patients, is discussed.

150615 Becker, Howard S. Northwestern Univ., Evanston, IL Consciousness, power and drug effects. **Society. 10(4):26-31, 1973.**

The relationships among consciousness, power, and drug effects are discussed. A person's prior knowledge about a drug influences the way he uses it, the way he interprets its effects and responds to them, and the way he deals with the sequelae of the experience. Side-effects are defined. The three major social structures in which drug use occurs are defined according to the degree of control the ultimate users of the drug exercise over their own drug taking and over the production and distribution of drug relevant knowledge. In one structure, that of illicit drug use for pleasure, users retain control. In a second situation, the user delegates control to an agent presumed to act on his behalf; modern medical practice is the prime example. In the third, in situations such as chemical warfare, the user has no control over his ingestion of the drug or over the production and distribution of knowledge associated with the use of the drug.

150623 Tesei, Rodolfo; Paciello, Marco Antonio; Scapicchio, Pier Luigi; Dotti, Andrea; Bertoletti, Paolo; Cancrini, Luigi. Istituto di Psichiatria, Universita di Roma, Italy /Clinical and experimental study of the alcohol - thioproperazine combination./ L'associazione alcool-tioproperazina: studio clinico e sperimentale. **Rivista di Psichiatria (Roma). 7(2):97-111, 1972.**

The study of the interaction between thioproperazine, a chlorpromazine derivative, and alcohol bears on the clinical problem of contraindication of the simultaneous use of neuroleptics and alcohol, and on the problem of theoretical in-

terpretation of the action mechanism of neuroleptics. Thioproperazine reinforces the specific psychopharmacological effect of alcohol in humans, and has a variable but modest effect on its metabolic degradation. Patients who received very high doses of thioproperazine developed a synergistic effect. The effect of 8mg/kg thioproperazine administered to rats simultaneously with 4 and 6ml/kg alcohol on conditioning, catatonia, and on reaction to pain showed differences in various tests compared to tests in which the rats received alcohol only. These test results differed significantly from similar tests involving chlorpromazine, due to the sedative power present in chlorpromazine but absent in thioproperazine. 7 references. (Author abstract modified)

150769 Vencovsky, E. Psychiatricka Klinika Lekarske Fakulty Karlovy University, Plzen, Czechoslovakia /Twenty years of chlorpromazine in psychiatric practice./ Dvacet let chlorpromazinu v psychiatricke praxi. **Ceskoslovenska Psychiatrie (Praha). 68(6):321-328, 1972.**

The 20-year history of neuroleptic drug therapy with chlorpromazine is reviewed. The ataractic effects of the drug in clinical practice discovered by Delaye and Deniker, and the subsequent clinical research by Kielholz, Labhardt, and Rummele at the Psychiatric Clinic in Basel are discussed. Their results were published in 1953 at the Largactil Symposium in Basel where all available clinical experience with chlorpromazine therapy of endogenous depression and schizophrenia were analyzed, including side-effects and complications. The widespread use of neuroleptic chemotherapy is discussed. (Author abstract modified)

150791 Rowe, Ian L. 116 Gamon Street, Yarraville, Victoria 3013, Australia Prescription of psychotropic drugs by general practitioners: 1. General. **Medical Journal of Australia (Sydney). 1(12):589-593, 1973.**

Prescriptions of psychotropic drugs by general practitioners have been studied in detail by the Royal Australian College of General Practitioners, from data provided by 796 doctors, recording for 1 week each during a 12-month period from April 1970 to March 1971. Original prescriptions of psychotropic drugs by all general practitioners in Australia numbered more than 3.5million, and sedatives and hypnotics nearly 5 million. More than half these prescriptions were written for mental disorders, but a significant number were for other conditions. The uses of the various drugs for the common mental disorders such as psychoses, neuroses, alcoholism and drug dependence, disorders of sleep, behavioral disorders in children, and transient situational disorders are listed. A trend from barbiturates to psychotropic drugs, particularly diazepam, and nonbarbiturate hypnotics is demonstrated. The cost to the patient is a more important factor in influencing prescribing than is generally acknowledged. Much of the criticism of the general practitioner for prescribing psychotropic drugs is due to lack of understanding of the wide spectrum of diseases and disorders for which these drugs are prescribed, and of other factors which infringe on his choice of drug. 7 references. (Author abstract modified)

150829 Lasagna, Louis. Dept. of Pharm. and Toxicol., Univ. of Rochester Sch. of Med. and Dentistry, Rochester, NY 14642 Drug therapy: hypnotic drugs. **New England Journal of Medicine. 287(23):1182-1184, 1972.**

A discussion of pharmacotherapy and insomnia is presented, with emphasis on the effects of specific drugs on sleep, the drawbacks of hypnotic drugs, and the use of the EEG in sleep research. Hypnotic drugs can be abused, used successfully for suicidal purposes, and cause hangover, paradoxical excitement or rashes. Hypnotics are contraindicated in patients with severe pulmonary insufficiency. The need for knowledge of the etiology of insomnia before treatment with hypnotics is stressed. Other approaches in pharmacotherapy utilize tranquilizers, antihistamines, or mild over the counter aids containing methapyrilene. Chloral hydrate has been shown effective in inducing sleep. Paraldehyde is of limited utility because of its offensive odor and taste. Barbiturates are effective, especially secobarbital sodium and pentobarbital sodium. Other drugs reviewed are methyprylon, methaqualone, glutethimide, and flurazepam. Certain shortcomings in the methodology of sleep lab experiments which have relied on EEG data are discussed. 5 references.

152542 Martin, William R. Addiction Research Center, National Institute of Mental Health, P. O. Box 2000, Lexington, KY 40507 Narcotic analgesics. (Unpublished paper). Lexington, KY, NIMH, 1973, 11 p.

A review of narcotic analgesics is presented. The analgesics have a variety of chemical structures including phenanthrene derivatives

(morphine and codeine), morphinans (levorphanol), phenyl piperidines (meperidine), diphenyl propylamines (methadone, propoxyphene and fentanyl), and benzmorphans (phenazocine). Topics include: properties for relief of pain and as antitussives and antidiarrheal agents; effect on the functioning of nerve cells that release neurotransmitters; subjective effects; depressant action on respiration; pharmacology; the therapeutic consequences of analgesics that have a ceiling effect or actions of morphine ad nalorphine types; appropriateness in the treatment of pain and precautions to be considered. Relative potency, duration of action, side-effects, and abuse potentialities are also discussed. 26 references.

152899 Sletten, Ivan W.; Altman, Harold; Evenson, Richard C.; Cho, Dong Won. University of Missouri School of Medicine, 5400 Arsenal St., St. Louis, MO 63139 Computer assignment of psychotropic drugs. **American Journal of Psychiatry. 130(5):595-598, 1973.**

Data on psychotropic drug assignment from patients' case records were used to: 1) derive a computer formula for assignment to one of three major drug categories (major tranquilizers, minor tranquilizers, antidepressants); 2) compare the results from this formula with those from a previous formula using prototype data; and 3) determine the agreement between this formula's results and the drug assignemnts made by the patients' physicians. It is concluded that the computer can regularly suggest assignment to one of three major categories, although the clinician will still have to make the final decision. 12 references. (Journal abstract modified)

152978 Inoue, Naohide. Kyushu University, Japan Pharmacological therapy of Parkinsonism with levodopa. **Medicina (Tokyo). 9(2):49-53, 1972.**

Treatment of Parkinsonism with L-dopa is described. Artane, Kemadrin, Parkin, or Cogentin should be tried with Parkinsonism initially, and then L-dopa when these drugs are ineffective. L-dopa should not be given to patients with anamnesis of the brain blood vessels; high blood pressure fluctuations; anamnesis of myocardial infarction; liver, kidney, or lung dysfunctions, or psychiatric symptoms. A total of 0.6to 0.75g of L-dopa should be given daily in 3 dosages 30 minutes after each meal initially and thereafter 0.2to 0.25g should be added to the dosage every three days. Improvement in subjective symptoms appears earlier than in objective symptoms. Patients who show no improvement after treatment with an additional 2.5g of L-dopa will not likely improve despite further increases in dosage. L-dopa is effective in more than 50% of patients with Parkinsonism, especially in those patients with akinesia, rigidity, and tremor. L-dopa mainly induces disturbances of digestive or circulatory organs, and psychiatric or neurotic symptoms. 17 references.

153264 Rowe, Ian L. 116 Gamon Street, Yarraville, Victoria, Australia Prescriptions of psychotropic drugs by general practitioners: 2. Antidepressants. **Medical Journal of Australia (Sydney). 1(13):642-644, 1973.**

A survey of antidepressants commonly prescribed by Australian general practitioners was conducted based on the results of the Australian Morbidity Survey of 1971. Eighty percent of the 1500000 prescriptions per year were for the treatment of mental disorders, most commonly depressive neurosis. These drugs were issued far more frequently to women than to men, and particularly to elderly women over 65. Tricyclic compounds comprised 99% of the antidepressant prescriptions. Women of childbearing years received prescriptions for tricyclic antidepressants and many of these women could have been pregnant while taking the drugs. Statistics on drug and prescription type and number of patient visits are also presented. 1 reference. (Author abstract modified)

153629 Werry, John S.; Sprague, Robert L. Department of Psychiatry, University of Auckland School of Medicine, Auckland, New Zealand Psychopharmacology. **Mental Retardation. 4:63-79, 1972.**

An overview is presented of psychotropic drugs in mental retardation in which their interdigitation into scientific and clinical knowledge and societal values is reviewed to produce an integrated survey. Specific consideration is given to: current patterns of utilization; the natural history of psychotropic drugs; the politics and economics of drugs; research, practitioner, and sample evaluation; drug effect definition (psychopathology, developmental level, and physiological function); measurement of effects; and clinical indications. Details are given on scientific, drug company, physician, government, and public roles. 65 references.

153796 Merlis, Sidney; Beyel, Virginia; Fiorentino, Diane; Fracchia, John; Sheppard,

Charles. Central Islip State Hospital, Central Islip, NY Polypharmacy in psychiatry: empiricism, efficacy, and rationale. **In: Masserman, J., Current psychiatric therapies. New York, Grune & Stratton, 1972. 264 p. (p. 89-97), v. 12.**

Results of polypharmacy (major and minor tranquilizers or antidepressant/stimulant medication) are reviewed and future directions are indicated. The present data support the contention that, in terms of incidence, polypharmacy is more than a novel treatment practice. Factors of age, sex, and length of hospitalization are shown to influence the incidence and types of drugs used in combination. The growth of polypharmacy in psychiatry signals a failure of currently available psychoactive agents rather than a new successful development in the treatment of mental disease. Comparative data from several patient groups treated with single drug forms, to include placebo, show single drugs to be the choice of treatment over polypharmacy during a comparable treatment period. Further evaluation of polypharmacy under controlled conditions demonstrate there is no increase in effectiveness over single-drug treatment. There is no basis in fact for the existence of polypharmacy as a treatment method, nor empirical support for continued use as an efficacious treatment modality. Yet it continues in psychiatry as an aberrant form of drug therapy. 12 references. (Author abstract modified)

154482 Klein, Donald F.; Howard, Alfredo. no address Psychiatric case studies: treatment, drugs, and outcome. Baltimore, Williams & Wilkins, 1972.

Theories and principles of psychopharmacological therapy are described and illustrated by examples of their application to individual patients. Theory is correlated in practical application. The cases histories give detailed background, stating the problem and giving family and developmental history, characteristics of behavior and attitude, the medication and treatment, their sequence and results, and a followup on the case. Each history has a comment which summarizes the case and examined the prognosis.

154830 Klerman, Gerald L. Harvard Medical School, Massachusetts General Hospital, 2 Fruit Street, Boston, MA 02114 The therapeutic future of mind-altering drugs. **Journal of School Health. 43(2):116-121, 1973.**

The therapeutic future of mind altering drugs is discussed. Topics examined include: the historical background of such drugs; the immediate future (emphasizing the changing function of mental hospitals); special problems in treating drug dependence; the far future (non therapeutic use of drugs); social strains in the use of mind altering drugs. 7 references.

155058 Morgan, Arthur James. Pennsylvania Hospital Community Mental Health Center, Philadelphia, PA Minor tranquilizers, hypnotics, and sedatives. **American Journal of Nursing. 73(7):1220-1222, 1973.**

Nurses must adopt a balanced, nonjudgmental attitude regarding the use of minor tranquilizers, sedatives, and hypnotics. While there are certain conditions, neurological and others, that may require the prolonged use of these drugs, they are relatively few in comparison to the great number of patients who are needlessly dependent on them. Anxiety and sleeplessness do merit attention. If they persist after the nurse has listened to the patient's concerns and understood them, and after she has made him physically comfortable, she should not hesitate to offer symptomatic relief in the form of appropriate medication. However, other techniques of reducing stress should also be made available. Among the most powerful is the practice of transcendental meditation and Yoga. 1 reference. (Author abstract)

155239 Wikler, Abraham. Department of Psychiatry, University of Kentucky Medical Center, Lexington, KY Dynamics of drug dependence: implications of a conditioning theory for research and treatment. **Psychopharmacology Bulletin. 9(3):11-12, 1973.**

Reasons for self-administration of psychoactive drugs, specifically opiods, are discussed, with data on continued drug use and the effects of opiate addiction. Detoxification and conditioning forms of treatment are presented, and it is concluded that prevention of drug dependence requires control of availability of psychotropic drugs and debunking of drug culture mythologies.

155240 Szara, Stephen; Bunney, William E., Jr. Division of Narcotic Addiction and Drug Abuse, NIMH, Rockville, MD Recent research on opiate addiction -- review of a national program. **Psychopharmacology Bulletin. 9(3):12, 1973.**

Research on the biomedical aspects of drug abuse by the Division of Narcotic Addiction and Drug Abuse (DNADA) of the National Institute of Mental Health (NIMH) is defined. Emphasis is centered on the pharmacological paradigm of tolerance and physical dependence. More research is needed in the genetic area.

155241 Jaffe, Jerome. Special Action Office for Drug Abuse Prevention, Washington, DC Multimodality approaches to the treatment and prevention of opiate addiction. **Psychopharmacology Bulletin. 9(3):12-14, 1973.**

Treatment approaches to the compulsive opioid use syndrome are discussed, listing eight models: 1) medical distributive; 2) benign maintenance/specific defect correction; 3) supervisory deterrent; 4) self-regulating therapeutic community; 5) conditioning-narcotics antagonist; 6) psychotherapeutic; 7) faith and dedication; and 8) multimodality. Government expansion of only three programs is possible; methadone maintenance, residence in self-regulating communities, and supervised withdrawal from opiates with psychotherapeutic aftercare.

155261 Katz, Martin M. Clinical Research Branch, National Institute of Mental Health, Rockville, MD Methodological considerations in transcultural psychopharmacology. **Psychopharmacology Bulletin. 9(3):35, 1973.**

Clinical problems in assessment of drug effects across national settings are discussed. Solutions proposed include: application of standard interview schedules, use of multiple raters, and application of social behavior rating techniques in the community itself. (Author abstract modified)

155265 Burdock, Eugene I.; Gershon, Samuel; Hardesty, Anne S.; Linden, Karl Joachim. New York University School of Medicine, New York, NY Problems and profits of cross-national collaborative studies. **Psychopharmacology Bulletin. 9(3):38-39, 1973.**

The feasibility of carrying out concomitant controlled clinical trials in different cultures under a common research protocol in order to test the efficacy of psychotropic drugs is discussed. The discussion is based on an evaluation of loxapine against chlorpromazine by five centers in the U.S.,West Germany, and Switzerland. Results are incomplete.

155266 Friedhoff, Arnold, J. Millhauser Laboratories, Department of Psychiatry, New York University School of Medicine, New York, NY Biological aspects of cross-national drug studies. **Psychopharmacology Bulletin. 9(3):40, 1973.**

The influence of interactions between cultural and biological factors on the outcome of drug studies is discussed, enumerating sociocultural, economic and ecological factors. It is concluded that problems and opportunities resulting from cross-cultural differences can be met by: 1) designing appropriate studies and introducing relevant controls; 2) being aware of interactions and effects; and 3) interpreting personal data and reports in literature.

155267 Murphy, H. B. M. Department of Psychiatry, McGill University, Montreal, Canada Significance and complications of the culutural variables in psychopharmacological research. **Psychopharmacology Bulletin. 9(3):40-41, 1973.**

Rewards and problems of cross-cultural psychopharmacological research are examined with discussion of cultural differences and areas of possible comparison distortion. It is felt that it is better to have careful data from a single culture than international comparisons distorted by unrecognized and unreported factors.

155268 Itil, Turan M. Department of Psychiatry, University of Missouri, Columbia, School of Medicine, St. Louis, MO Drug developments in Europe: discovery of 'tetracyclic' psychotropic drugs. **Psychopharmacology Bulletin. 9(3):41-43, 1973.**

Clinical trials of three new tetracyclic compounds, GB-94, GC-46, and GC-94, are discussed. They were found to have potent antiserotonin properties. Studies to determine CNS effects are also discussed. 2 references.

155269 Denber, Herman C. B. J. Hillis Miller Health Center, University of Florida, Gainesville, FL Trials with drugs outside the U.S. **Psychopharmacology Bulletin. 9(3):43-44, 1973.**

The freedom and facilities for psychopharmacologic investigation in Switzerland as opposed to the U.S. are discussed. Two studies done on AHR 2277 and 1766 CERM are examined to reflect the relative differences in research environment between the two countries. 1 reference.

155270 Wheatley, David. General Practitioner Research Group, Twickenham, England New drug development in the United Kingdom. **Psychopharmacology Bulletin. 9(3):44-45, 1973.**

New drug developments in the United Kingdom are described. Three categories of drugs are examined: 1) beta-blocking drugs in anxiety; 2) thiazide diuretics in depression; and 3) new antidepressants of original formulation. 6 references.

155271 Kielholz, P. Psychiatrische Universitatsklinik, Basel, Switzerland New drug developments in German speaking countries. **Psychopharmacology Bulletin. 9(3):45, 1973.**

Trends in the development of new psychopharmaceuticals in Germany are presented, with examples of promising new drugs discussed. The types of drugs reviewed include: 1) neuroleptics 2) antidepressants, and 3) tranquilizers. It is felt that progress in the investigation of neurotransmitter mechanisms, especially of the monoamines, provides hope that the biochemical basis of endogenous depressions will soon be clarified, a fact that will render causal therapy possible.

155272 Deniker, P.; Ginestet, D.; Peron-Magnan, P. Service Hospitalo-Universitaire de Sante Mentale et de Therapeutique, Paris New drug developments in France and French-speaking countries. **Psychopharmacology Bulletin. 9(3):46-47, 1973.**

Newly developed neuroleptic drugs in France and French-speaking countries are summarized and described. Four groups of neuroleptics and an original, unclassified compound (Sulpiride) are discussed. The neuroleptics are classified according to, sedative potential, polyvalent qualities, those whose specific action is revealed through years of extensive use, and those used in the treatment of schizophrenia.

155273 Ban, T. A.; Galvan, L.; Udabe, R. Ucha; Vergara, L.; Zoch, C. Department of Psychiatry, McGill University, Montreal, Canada New drug developments in the Latin Americas (Argentina, Costa Rica, Mexico, and Panama). **Psychopharmacology Bulletin. 9(3):47-48, 1973.**

Psychopharmacology teaching and practices, drug availability, and governmental control in Argentina, Costa Rica, Mexico, and Panama are discussed and compared to similar procedures in the U.S. A discussion of new drugs used in these Latin American countries is included. 1 reference.

155274 Merlis, Sidney. Research Division, Central Islip State Hospital, Central Islip, NY Problems and experiences with trials outside the United States: the time lag in new drug availability. **Psychopharmacology Bulletin. 9(3):48-49, 1973.**

Restrictions leading to the exclusion and delayed availability of new therapeutic agents in the U.S. are discussed. It is suggested that present governmental policies are too limiting and should be patterned more after the research policies in other countries, especially Great Britain.

155276 Simeon, Jovan; Itil, Turan M. University of Missouri, Columbia, School of Medicine, Missouri Institute of Psychiatry, St. Louis, MO Pediatric psychopharmacology outside the United States. **Psychopharmacology Bulletin. 9(3):50, 1973.**

The use of psychotropic drugs in children in 32 countries is discussed, giving the most frequently used drugs, the disorders treated, and the dosage differentiation.

155277 McGlashan, Thomas, H.; Guy, William H.; Davis, David; Levine, Jerome. Psychopharmacology Research Branch, ERP, National Institute of Mental Health, Rockville, MD The research plan report: revised form and information retrieval system. **Psychopharmacology Bulletin. 9(3):53-72, 1973.**

The Research Plan Report (RPR), which is used before starting a research project, is described as a form which attempts to gather pertinent information about study design in psychopharmacological research. A copy of the new revised form is included. The RPR computer retrieval system is also discussed.

155278 Suwa, Nozomi. Department of Psychiatry and Neurology, Hokkaido University School of Medicine, Sapporo, Japan Papers on psychopharmacological research from the Japanese literature. **Psychopharmacology Bulletin. 9(3):83-87, 1973.**

Citations of papers organized by drug name from Japanese literature are presented, including papers on side-effects of psychotropic drugs and drug related studies.

155437 Paramaesvaran, N.; Singh, Charanpal. Hospital Besar, Kota Bahru, Kekautan, Malaysia Lipoma of the corpus callosum. **Journal of Medicine (Hong Kong). 8(7):296-298, 1972.**

Lipoma of the corpus callosum in a child with an extra cranial extension is reported. Clinical

diagnosis is vague because symptomatology is vague, brain scans are negative and there is no sex or age distribution. Conservative treatment is suggested with anticonvulsant therapy and physiotherapy. Surgery is not recommended. 6 references.

156497 Dykes, Michael H. M. AMA Dept. of Drugs, Chicago, IL Clinical pharmacology. **Journal of the American Medical Association. 223(13):1497-1498, 1973.**

In a letter to the editor, the importance of evaluating drugs is discussed. Clinical pharmacology is defined as the study of how drugs affect the human body and bodily effects on drugs, both in health and disease. The influence of the clinical pharmacologist on prescribing habits of physicians is discussed. A great need for an increase in the number of clinical pharmacologists is stressed. 6 references.

157035 Nakagawa, Tetsuya; Nagato, Hiroshi. Kyushu University Medical School, Japan Recent pharmacotherapy: tranquilizers. **Diagnosis and Treatment (Tokyo). 60(1):101-107, 1972.**

Chemical synthesis, mechanism of action, and effects of minor tranquilizers are described. The definition of minor tranquilizers and suggestions on usage are discussed. Effects, chemical structure, and side-effects of meprobamate and benzodiazepine derivatives, such as chlordiazepoxide, diazepam, nitrazepam, oxazepam, oxazolam, and medazepam are considered. 17 references.

157291 Marder, Joseph E.; Dimascio, Alberto. Massachusetts Department of Mental Health, Boston, MA Improving scheduling and reducing costs of psychotropic drugs for outpatients. **Hospital & Community Psychiatry. 24(8):556-557, 1973.**

A study at Boston State Hospital that found almost 39% of the prescriptions for psychotropic drugs could be revised without changing the total daily milligrams of medication, resulting in considerable savings, is presented. In prescribing psychotropic medications for outpatients, physicians frequently follow the pattern used for inpatients, which requires taking medication three or more times a day. Such a schedule is not only inconvenient but the cost of medication is considerably more than if it were prescribed in larger doses twice a day. 2 references. (Author abstract modified)

157300 Norton, T. R.; Bristol, M. L.; Read, G. W.; Bushnell, O. A.; Kashiwagi, M.; Okinaga, C. M.; Oda, C. S. Department of Pharmacology, University of Hawaii, Leahi Hospital, Honolulu, HI 96816 Pharmacological evaluation of medicinal plants from Western Samoa. **Journal of Pharmaceutical Sciences. 62(7):1077-1082, 1973.**

Pharmacological evaluation of 110 plants from 34 different species of medicinal and toxic plants collected in or near the Lefaga District on the island of Upolu in Western Samoa is given. Voucher specimens of all species were made. From the 110 plant parts, 211 different extracts were prepared and evaluated for antiviral, antibacterial, and anti-Ehrlich ascites tumor properties, and for effects on blood pressure, heartrate, respiration, electrocardiogram, electroencephalogram, and gastric motility. Twelve extracts were effective in vitro as antibacterial agents and six inhibited Ehrlich ascites tumor in mice. Ninety one extracts showed hypotensive properties, 31 for more than 30 minutes. 3 references. (Journal abstract modified)

157301 Turner, Carlton E.; Hadley, Kathy W. Research Institute of Pharmaceutical Sciences, School of Pharmacy, University of Mississippi, University, MS 38677 Constituents of Cannabis sativa L. III: clear and discrete separation of cannabidiol and cannabichromene. **Journal of Pharmaceutical Sciences. 62(7):1083-1086, 1973.**

Qualitative determination by gas chromatography of cannabichromene, cannabidiol, or mixtures of the two in samples of Cannabis sativa L. plant material is described. Synthetic cannabidiol and cannabichromene were separated as their trimethylsilyl esters and the mono (trimethylsily) ether of cannabidiol was identified. It is noted that caution must be observed to ensure complete silylation, and/or the absence of the internal standard will lead to erroneous results. 10 references. (Journal abstract modified)

158297 Bozza-Marrubini, Marialuisa; Selenati, Adriana. Servizio di Anestesia e Rianimazione 'G. Bozza,' Ospedale Maggiore di Milano, Ospedale CA' Granda, 20100 Milan, Italy Clinical use of diazepam an intensive therapy: indications and results. **In: Garattini, S., The benzodiazepines. New York, Raven Press, 1973. 685 p. (p. 565-569).**

The clinical use of diazepam in intensive therapy as a substitute for narcotics and for peripheral muscle relaxants is reported. Diazepam

should be the drug of choice under the following conditions: nasotracheal or orotracheal intubation in conscious or semiconscious patients; adaptation of conscious or comatose patients to the mechanical respirator's rhythm; psychomotor agitation in brain injuries; sedation in convulsive disorders due to status epilepticus, eclampsia or poisoning; and relaxation of tonic muscle spasms due to brainstem lesions, tetanus or other causes. A tabular summary of the clinical indications for the use of diazepam including dosage and association with other drugs is included. (Author abstract modified)

158353 Vince, John D.; Kremer, Dag. Centre for Rheumatic Diseases, Royal Infirmary, Glasgow, Scotland Double-blind trial of diazepam in rheumatoid arthritis. **Practitioner (London). 210(1256):264-267, 1973.**

A double-blind, cross over trial is reported in 24 patients with rheumatoid arthritis receiving standard antiinflammatory analgesics, comparing diazepam with placebo. The dose of diazepam was 15mg given orally in three equal divided doses. None of the patients had clinically overt psychiatric or psychoneurotic manifestations. No significant differences were noted in the patients' pain, joint tenderness or grip strength, and morning stiffness was significantly reduced during placebo therapy. The results do not indicate that diazepam is a useful adjunct to standard antirheumatic drug therapy in patients with rheumatoid arthritis. 19 references. (Author abstract)

158356 Lambert, D. M. D. Keighley, Yorkshire, England The use of propranolol in the treatment of hypertension. **Practitioner (London). 210(1256):277-282, 1973.**

A study of the hypotensive action of propranolol is presented. Thirty patients with hypertension were treated with propranolol alone over a period ranging from 2 to 18 months. The majority of these patients (80%) showed a satisfactory control of blood pressure with no side-effects. To determine if the reduction in blood pressure was due to propranolol, treatment was withdrawn for several months in 17 patients. Blood pressure rose in this group of patients towards pretreatment levels. When propranolol therapy was reintroduced satisfactory control was again achieved. 5 references. (Author abstract modified)

158625 Lennard, Henry L.; Epstein, Leon J.; Bernstein, Arnold; Ransom, Donald C. no address Hazards implicit in prescribing psychoactive drugs. **In: Susman, J., Drug use and social policy. New York, AMS Press, 1972. 595 p. (p. 237-244).**

The theory that the pharmaceutical industry is redefining and relabeling human problems as medical problems is presented. The pharmaceutical industry is trying to extend its potential market for its drug products through such communication with physicians. An examination of medical journals reveals many advertisements for Librium, Vistaril, Tofranil, etc.,for people suffering from ordinary anxiety stress. This contemporary trend of increasing prescriptions for psychoactive drugs is criticized. The mystification that surrounds the use of consciousness altering drugs has deepened and the various costs to the individual and the public of this syndrome are enumerated in detail. It is recommended that a nonchemical means of altering the state of human and social relationships be employed. 15 references.

158626 Schultes, Richard Evans. no address The place of ethnobotany in the ethnopharmacologic search for psychotomimetic drugs. **In: Susman, J., Drug use and social policy. New York, AMS Press, 1972. 595 p. (p. 245-268).**

The uses of ethnobotany, the study of the relationships between man and his ambient vegetation, in discovering new psychotropic drugs, is described. Many drugs, both benevolent and harmful, have been derived from plant life. Ethnobotanical investigations have already proved their potential in the search for new psychotomimetric drugs. Many primitive societies have discovered in plants the properties of certain hallucinogens, long before Western researchers. Anthropologists in South and Central America have reported several stimulants. Several New World psychotropic drinks, some with narcotic effects, are described in detail. The possibility of discovering new hallucinogens in the New World and a possible explanation of ancient soma are offered. Guidelines for future searches by ethnopharmacologists are also presented. 65 references.

158645 Linn, Lawrence S. no address Physician characteristics and attitudes toward legitimate use of psychotherapeutic drugs. **In: Susman, J., Drug use and social policy. New York, AMS Press, 1972. 595 p. (p. 487-495).**

Differences in attitudes among physicians in prescribing controversial drugs were investigated in relation to the characteristics and background of the cooperating doctors. Data were collected by random selection of 235 physicians from Los Angeles. Appropriate questionnaires and followup letters were mailed to measure the general attitude of the doctors toward the uses of Dexedrine, Librium and other psychotherapeutic drugs in various hypothetical situations. The study found that physicians as a group feel that the use of Dexedrine as portrayed in the five hypothetical situations was not legitimate from a medical point of view. This is especially true with older, less wealthy, and doctors in a group practice. Physicians as a group were less in agreement concerning the possible abuses of Librium. It is recommended that definitions of legitimate drug use be based on sound medical criteria or a code rather than on a physician's moral standards or social values. 21 references.

159175 Penrod, William Calvin. University of Missouri, Columbia, MO The role of stress in passive avoidance tasks. (Ph.D. dissertation). **Dissertation Abstracts International. Ann Arbor, Mich., Univ. M-films, No. 72-19235 HC$10.00 MF$4.00 38 p.**

Amnesic agents were examined for their effects on step through latency (STL) independent of learning considerations. All amnesic agents tested failed to show the systematic effects on STL necessary to challenge the amnesia theory. STL was found to covary with general activity, but to be independent of stress treatments. Urinary Na/K was found to be an oversensitive indicator of stress, lacking in fine discrimination. It is concluded that STL is not confounded by performance factors and remains a valid measure of retrograde amnesia. (Journal abstract modified)

159347 Hollister, Leo E. VA Hospital, Palo Alto, CA Uses of psychotherapeutic drugs. **Annals of Internal Medicine. 79(1):88-98, 1973.**

The uses of psychotherapeutic drugs are examined in light of evidence that they are the most widely used drugs in all medical practice. The episodic nature of much anxiety must be recognized, the hypnotic effects of the drugs must be exploited and the dose tailored to the patient. These drugs and antidepressive drugs must be used concomitantly with nondrug therapy. The antidepressive drugs are most effective for endogenous depressions which are probably genetically transmitted and based on a disorder of central neurotransmission. Commoner types of depressions may respond to a wider variety of drugs: stimulants, antianxiety agents or even small doses of antipsychotic drugs. Antipsychotic drugs are often unwisely combined. Antimanic drugs, like lithium carbonate, have given a new dimension to thinking about functional psychosis. A list of the generic and trade names of the drugs is included. 24 references. (Author abstract modified)

159472 Davis, R. Carter, Jr. Atlanta, GA Intravenous diazepam administration. **Journal of the American Medical Association. 225(7):750, 1973.**

In a letter to the editor, the intravenous administration of diazepam through a scalp vein needle is discussed. It is noted that this procedure has not decreased the number of cases of phlebitis. A clinical trial with a flushing of the syringe with a reparin sodium solution periodically during diazepam administration is recommended.

160218 Hesbacher, P. T.; Rickels, K.; Hesbacher, E. N. Department of Psychiatry, University of Pennsylvania, Philadelphia, PA Entry and exit from treatment: some consequences of pretreatment experience for treatment response. **International Pharmacopsychiatry (Basel). 8(1-2):70-79, 1973.**

The consequences of pretreatment experience on treatment response were examined. Pretreatment events were combined with events during treatment to describe a single treatment process having five stages: (1) the symptom experience stage; (2) the stage of sick role assumption; (3) the medical care contact stage; (4) the dependent patient role stage; and (5) the recovery or rehabilitation stage. The influence an early stage of this process can exert on a subsequent one is illustrated by a comparison of treatment outcomes for similar kinds of psychoneurotic patients receiving pharmacotherapy in different settings. Evidence suggests that favorable response to minor tranquilizers is more likely in family practice than in private psychiatric practice or hospital clinics. Thus, the selection of treatment setting, an important event prior to the dispensing of medical care, is shown to have implications for the outcome of treatment. Further research to qualify this conclusion is proposed. 22 references. (Author abstract)

160219 Singh, Man Mohan. Clinical Psychopharmacology Unit, Bronx State Hospital, 1500 Waters Place, Bronx, NY 10461 Psychopharmacological study of schizophrenia -- some ways out of an impasse. **International Pharmacopsychiatry (Basel). 8(1-2):80-98, 1973.**

The problems of research design, ward setting, drug patient milieu interactions and observational techniques were investigated in a longitudinal, double-blind study of haloperidol in 10 acute schizophrenics. A model ward was established to provide a structured, reality oriented milieu and a ward staff questionnaire was used to monitor the milieu. The patient behavior was repeatedly measured through the use of psychopathology scales as well as a series of specially designed life-functions rating scales. Hypotheses concerning the nature of schizophrenic disorder included: a nontherapeutic interaction between the neuroleptic and anti-Parkinsonism treatment which was reflected in the whole therapeutic milieu; differences in the course of changes in cognitive dysfunctions and social avoidance behavior, with the later being selectively increased by anti-Parkinsonism medication; considerable residual deficits in the cognitive as well as social functions after treatment, and the suggestion that both these derangements might reflect fundamental developmental defects. 42 references. (Author abstract)

160462 Garattini, Silvio; Mussini, Emilio; Randall, Lowell O. Istituto di Ricerche Farmacologiche 'Mario Negri', Via Eritrea 62, 20157 Milan, Italy The benzodiazepines. New York, Raven Press, 1973. 685 p. $35.00.

A correlation of the chemical, pharmacological and clinical data on the benzodiazepines is presented. Studies concern the chemistry, pharmacology, biochemistry, neurobiochemistry, psychopharmacology, metabolism and clinical effects of the drugs. Clinically relevant actions of the compounds are reviewed such as antianxiety effects, antiaggression effects, anticonvulsant effects, use in alcohol withdrawal states, effects on sleep and muscle relaxation. Complex interactions of the benzodiazepines with other commonly prescribed drugs are reviewed. Discussion summaries of major work areas are included. 1001 references.

160696 Enelow, Allen J. Department of Psychiatry, University of the Pacific, San Francisco, CA The use and abuse of the psychotropic drugs. **Journal of the Oklahoma State Medical Association. 66(8):355-359, 1973.**

Three major groups of psychotropic drugs are discussed in terms of indications and contraindications to their use: the major tranquilizers, the tricyclic antidepressants, and the minor tranquilizers. Significant dangers accompanying the use of psychotropic drugs are discussed, including the risk of habituation. The misuse of tranquilizers in the treatment of neurotic individuals is considered, and good communication between physician and patient is recommended as the treatment in such cases. (Author abstract modified)

161159 Mormont, C. no address /Nonpharmacological effects of drugs and the paranoid state./ Effets non pharmacologiques des drogues et position paranoide. **Feuillets Psychiatriques de Liege (Liege). 5(4):434-439, 1972.**

The effect of drugs on paranoid schizophrenic patients which is not attributable to pharmacologic, but rather to psychological impact on the patient is discussed. The possible reactions with regard to drugs in the paranoid patient may be beneficial if the patient looks upon the medication as being good for him; he expects total protection by the medication and regards the therapist as a mother substitute; this effect may be manifested even when the patient is ingesting placebos. If the patient regards the drug as being bad for him, the patient will actually know that the medicine will not cure him or even harm him; the medication is then seen as a failure. It is also possible that the patient will suspect the drug of being poisonous, the anxiety caused by these fears is enough to cause ill effects, even if the drug had previously been effective. It is plausible that the therapists administering the drug are more likely to suggest their good effects and deny any hostility shown by the patient, which also has an effect on the outcome of the medication.

161595 Krakowski, Adam J. Champlain Valley-Physicians Hospital Medical Center, 202-A Cornelia St., Plattsburgh, NY 12901 Role of consultation psychiatry in teaching psychopharmacology in the general hospital. **New York State Journal of Medicine. 73(15):1987-1991, 1973.**

A survey utilizing a short questionnaire is described and information on the extensive use of drugs by nonpsychiatric physicians is presented. Psychiatric consultation - liaison services have helped in educating nonpsychiatric physicians and the house staff of general hospitals in the need and use of psychopharmacology. These physicians are then equipped to treat certain specific neu-

rotic reactions in patients. It was discovered that psychoactive drugs are used extensively and that the professional information must be continually upgraded during the education process if drugs are to be truly beneficial. 9 references. (Author abstract modified)

161630 Elliott, Claudia; Kintzler, Constance. 1863 N. Bissell, Chicago, IL 60614 No prescription pads for social workers. **Clinical Social Work Journal. 1(2):134-136, 1973.**

Arguments against training nonmedical persons in medication prescription are presented. It is asserted that drugs should be used only when other problem-solving efforts have no effect and that an increase in the number of people able to prescribe drugs would result in drugs replacing conventional treatment to a large degree. It is also argued that a change in function would affect the training of social workers, whose clinical training would be reduced in order to include a course in psychopharmacology and that if social workers accepted this responsibility, it would relieve the medical profession of the necessity of training more physicians. It is concluded that the dispursement of psychotropic drugs should not be a primary part of the social worker's task.

161669 World Health Organization; National Institute of Mental Health. no address International directory of investigators in psychopharmacology. World Health Organization, 1973.

A directory of 2,000 investigators in psychopharmacology is presented. The directory is listed in alphabetical order with geographic and research activity indexes. Questionnaires for the directory were sent to 8,000 individuals. It should be of use to anyone who wishes to contact workers in the field of psychiatry.

161680 no author. no address International directory of investigators in psychopharmacology. Washington, D.C., DHEW, 1972. 439 p.

A worldwide directory of investigators in the field of psychopharmacology is presented. This volume is an outgrowth of the regularly published Psychopharmacology Bulletin prepared by the National Institute of Mental Health and represents a compilation of known investigations in all aspects of the discipline.

161892 Wyatt, Richard J.; Saavedra, Juan M.; Axelrod, Julius. Laboratory of Clinical Psychopharmacology, St. Elizabeths Hospital, Washington, DC 20032 A dimethyltryptamine-forming enzyme in human blood. **American Journal of Psychiatry. 130(7):754-760, 1973.**

An enzyme capable of forming the hallucinogen dimethyltryptamine, and found in human red blood cells, plasma, and platelets is discussed. The enzyme activity in red blood cells and plasma was not significantly different in psychiatric patients from that in normal subjects. The enzyme activity in platelets was higher in psychotic subjects than in nonpsychotics and was apparently related to the presence of a dialyzable inhibitor in the normal subjects. 13 references. (Author abstract)

162382 Pare, C. M. B. no address Psychiatric complications of everyday drugs. **Practitioner (London). 210(1255):120-126, 1973.**

Psychiatric complications from use of six broad classes of commonly used drugs are discussed. The six classes include: 1) drugs used for their action on the brain, such as tranquilizers, hypnotics and stimulants; 2) antipyretics and analgesics; 3) antibacterial drugs; 4) hypotensive drugs; 5) steroids; and 6) oral contraceptives. An overview of mental effects of these drugs illustrates subsidiary pharmacological effects of some drugs; the importance of dosage and correct drug usage; and individual variations in susceptibility, especially in elderly patients who are especially liable to mental confusion. 14 references.

163001 Farnsworth, Dana L. Harvard School of Public Health, Harvard University, Cambridge, MA Psychotropic drugs: agents of hope or despair. **Medical Insight. 58(8):8, 1973.**

Psychotropic drugs which have been responsible in part for bringing about almost revolutionary changes in mental hospitals for the chronically ill are discussed. The role of the medical profession in teaching patients to use drugs properly is emphasized. Problems surrounding overdependence on drugs are examined. 1 reference.

163002 Stolley, Paul D.; Becker, Marshall H. Johns Hopkins, School of Hygiene and Public Health, Baltimore, MD Are psychotropic drugs being misused? **Medical Insight. 5(8):20-23, 1973.**

The problem of psychotropic drugs being excessively and inappropriately prescribed and misused was examined. Overall drug use in a typical American community with a population of 100,000, served by approximately 100 physicians,

was studied. Results indicated that psychotropic drugs account for more prescriptions than any other therapeutic class of drugs: one out of 10 patients who received a prescription is given a psychotropic drug. It is concluded, however, that psychotropic drugs are generally not being prescribed indiscriminantly nor are they being used over prolonged periods by most patients. 2 references.

163165 Blackwell, Barry. 3231 Burnet Avenue, Cincinnati, OH 45229 Psychotropic drugs in use today: the role of diazepam in medical practice. **Journal of the American Medical Association. 225(13):1637-1641, 1973.**

Psychotropic drugs in use today, illnesses being treated, appropriate drugs, proper use of drugs, and the role of diazepam in medical practice are discussed. During the last 8 years, the only outstanding trend in the use of psychotropic drugs has been the increase in the prescription of diazepam, which is now the most widely used drug in the United States. This represents a shift away from the belief in specific treatments for depression or anxiety. It is suggested that while overuse may account for some of the recent increase in use of benzodiazepines, a closer examination of the physician patient interaction and the events that reinforce belief in drug efficacy must be better understood. 13 references.

163221 Shader, Richard I. no address Psychiatric complications of medical drugs. Raven Press, New York, 1972. 394 p. $14.50.

Data on the psychic effects of drugs often prescribed by physicians are presented. Literature on the psychic effects of Digitalis, reserpine, belladonna alkaloids and synthetic anticholinergics, antituberculosis agents, levodopa, various hormones, oral contraceptives, amphetamines, vitamins and placebo is reviewed. Drugs alone are not sufficient cause for mental and behavioral symptoms. Management of toxic effects and therapeutic benefits of some drugs for the emotionally disturbed are discussed.

163280 Williams, John R. Dept. of Chemistry, Temple Univ., Phila., PA 19122 Photosensitisation due to drugs. Final Report, NIMH Grant MH-20543, 1973, 9 p.

Photosensitization of phenothiazine under anaerobic conditions is discussed. The molecule is unchanged under anaerobic photolysis. However, photolysis under aerobic conditions leads to the formation of a 3,10' photodimer, phenothiazone and 3-hydroxyphenothiazine. During the reaction, an intermediate which incorporates a molecule of oxygen appears to be formed. Photolysis of this intermediate with light of lambda greater than 420nm yields phenothiazine and singlet excited oxygen. The dye-photosensitised oxidation of purines, pyrimidines and nucleic acids is reviewed. The photodynamic dyes, proflavine and neutral red, generate singlet oxygen when irradiated with visible light in the presence of oxygen. Singlet oxygen then probably reacts with labile sites in the protein or DNA of Herpes simplex leading to inactivation of the virus. 3 references. (Author abstract modified)

164233 Levine, Ruth R. no address Pharmacology: drug actions and reactions. Boston, Little, Brown, 1973. 412 p. $9.50

The basic precepts of general pharmacology are reviewed and illustrated with a number of clinical and pharmacologic examples. Topics discussed include both qualitative and quantitative aspects of chemical biologic interactions; drug toxicity; drug abuse and dependence; and guidelines for the development and testing of new drugs.

164429 Thale, Thomas. Department of Psychiatry, St. Louis University, St. Louis, MO Effects of medication on the caseworker-client relationship. **Social Casework. 54(1):27-36, 1973.**

Effects of medical treatment, self-medication, illicit drugs or inappropriate use of legitimate medicines on the caseworker client relationship are discussed. Rudiments of pharmacodynamics, psychodynamics, and sociodynamics of psychotropic drug use are overviewed. Situations in which the social worker should consider the possible intrusion of drugs into his relationship with the client include: 1) the modification of the client by medicinal agents; 2) instances when drug abuse is unacknowledged by the client; and 3) when the relationship is modified by psychological and social issues around the drug use. Sources of information regarding drug use are outlined, and it is discussed in terms of the complex relations between client, social worker and physician. 5 references.

164621 Miller, Henry. University of Newcastle-upon-Tyne, England Librium atque valium. **Medical World. 111(8):12, 1973.**

The Monopolies Commission Report on the price of librium and valium is discussed. British and foreign companies are extracting exorbitant prices for chemotherapeutic and analgesic agents from National Health Service (NHS) funds, and it is hoped they will take the findings of the Commission as a warning. The issue in the case of librium and valium is complicated by the fact that, despite their popularity, neither is an outstanding drug. More important is the policy with regarding the organization of the drug industry. Only a vast industry which can accept a high risk of failure can afford to undertake the work which goes into the major therapeutic advances which have revolutionized clinical medicine in the last 30 yrs. It is concluded that the competitive free market has few attractions for the great international drug houses.

165189 Greenberg, Roger P.; Fisher, Seymour; Shapiro, Jeffrey. State University of New York, Upstate Medical Center, Syracuse, NY Sex-role development and response to medication by psychiatric in-patients. **Psychological Reports. 33(2):675-677, 1973.**

The relationship between sex-role development and response to taking medication by male and female psychiatric inpatients was investigated. The major hypotheses were that the more feminine a S's orientation, the less resistance he would show to taking medication, the fewer adverse side-effects he would report, and the fewer unusual body distortions he would acknowledge. All hypotheses were supported for women, and trends were noted for the second and third hypotheses for men. Differences between the men and women in length of hospitalization and drug treatment may account for the difference in results. 3 references. (Author abstract)

165679 Bramson, Stewart M. Orange, CA Abuse of benzodiazepine tranquilizers. **Journal of the American Medical Association. 225(7):749, 1973.**

In a letter to the editor, observations are presented on the abuse of benzodiazepine tranquilizers by alcoholic patients. It is noted that such patients often try to discourage the prescription of neuroleptic drugs, such as chloromazine, but display eagerness to obtain benzodiazepines. The patients' description of a subjective state, similar to that obtained from alcohol, while on these drugs is suggested as an explanation for the drug abuse.

166484 Freeman, Roger D. Univ. of British Columbia, Vancouver 8, British Columbia, Canada Review of medicine in special education. Drug research: out of sight, out of mind. **Journal of Special Education. 7(2):223-228, 1973.**

A review of the interaction between the Food and Drug Administration (FDA) and the industry when a new drug is introduced is presented. It is felt that the FDA acts to benefit the drug companies rather than the public by prematurely approving a drug for release, by operating at a mediocre scientific level, by withholding information about actual or potential risks in drug taking, by a too close association with industry and a retirement into industry by many of its officers. Industry serves its company and stockholders before they serve the public; often information is withheld or risks of drug use are minimized. Government prosecution is often minimal. Some recommendations are included. 11 references.

166549 Kazamatsuri, Hajime. Department of Psychiatry, Teikyo University School of Medicine, Japan Recent trends in psychopharmacotherapy in the United States. **Clinical Psychiatry (Tokyo). 14(11):1057-1063, 1972.**

The status of psychopharmacotherapy at public hospitals in the U.S. is described. Types of psychotropic drugs currently used and various methods of administering psychotropic drugs are discussed, as well as the historical change in the amount of consumption of psychotropic drugs at Boston State Hospital from 1955 to 1970. 10 references.

166582 Richens, Alan. St. Bartholomew's Hospital, London, England Developments in drug therapy. **Nursing Mirror and Midwives Journal (London). 137(13):30-32, 1973.**

The relationship of unwanted effects of drugs to drug therapy is discussed in a survey of recent developments in drug therapy. The problems of iatrogenic (doctor induced) disease, self poisoning, addiction, and drug taking for kicks are considered arguments for greater care in discovering the limitations and contraindications of drugs before their widespread prescription.

166875 no author. no address Resumes of research projects in psychopharmacology. **Psychopharmacology Bulletin. 9(1):51-58, 1973.**

Resumes of research projects supported by the Psychopharmacology Research Branch, National

Institute of Mental Health, are presented. The broad spectrum of topics dealt with are psychotropic drug influence in cat brain, activity and toxicity of new compounds, the activity of monoamine oxidase, side-effects of benzodiazepine on olefaction, effects of narcotics and marihuana on brain amine levels, relation of catecholamines to blood pressure, and many physiological observations on CNS active agents.

166877 no author. no address A bibliography of papers from the Swiss literature, 1970-1971. **Psychopharmacology Bulletin. 9(1):63-65, 1973.**

A compendium of papers on psychotropic drug research in the Swiss literature is presented. A total of 53 references were compiled at the Psychiatrische Universitatsklinik in Basel. 53 references.

166983 Muus, P.; Kirk, L. no address /Significance of information on patients and personnel evaluated after 5000 serum lithium values./ Betydningen af information af patienter og personale bedomt efter 5000 serum lithium vaerdier. **Nordisk Psykiatrisk Tidsskrift (Odense, Denmark). 26(6):362, 1972.**

Changes in lithium treatment between 1969 and 1971 are discussed. Patients received oral and written information before and during treatment. Personnel received written instruction. Initial dosage was given in the evening if possible. Outpatients were seen once a month. Patients were questioned as to last intake and were provided with results of blood tests. Serum lithium was determined approximately 5000 times between 1966 and 1971 for treatment effectiveness evaluation. Mean serum lithium value was 0.7meq/l between 1966 and 1969, and 0.89/meq/l in 1970 and 1971. These results are for patients treated in part in accordance with given guidelines, while a special group had a mean serum lithium of 0.93meq/l when treated entirely as prescribed. Findings show 34% received insufficient treatment between 1966 and 1969, improving to 17% between 1970 and 1971. Serum lithium values below 0.6meq/l were found in 7% of the special group treated in full compliance with the above guidelines.

167108 Blackwell, Barry. Dept. of Pharmacology, Univ. of Cincinnati, Cincinnati, OH /Testing new drugs for the first time in man./ For the first time in man. **Clinical Pharmacology and Therapeutics. 13(5/2):812-823, 1972.**

Industrial and academic clinicians engaged in first time drug applications to humans were surveyed. Academicians generally prefer patient subjects and small sample size (5 Ss). Industrial scientists employ prisoners as Ss and large sample size (20 to 50 Ss). All clinicians prefer a preliminary test for safety data using normal Ss. Academic clinicians were more rigorous in obtaining written permissi a from Ss. All clinicians favor first time observations in a special ward for control purposes. Further information on LD 50 values, screening criterion and sex and age preferences are included.

167109 Martz, B. L. Lilly Lab. for Clinical Research, Marion County General Hospital, Indianapolis, IN /Discussion of a survey of academic and industrial scientists on testing new drugs for the first time in man./ Discussion. **Clinical Pharmacology and Therapeutics. 13(5/2):824-826, 1972.**

A survey of academic and industrial scientists on subjects, experimental strategies and value of studies in which drugs are given to man for the first time is discussed and evaluated. About 80% of academic scientists and only 37% of industrial scientists favor early pharmacokinetic studies. Availability of analytic instrumentation is considered essential to aid in early drug measurements so as not to detract from the safety of the subjects or make these studies less satisfying to investigators. The survey indicates that half of the respondents favor use of normal volunteers. The use of patients with the appropriate disease state is recommended. Patients in a clinical setting should be used for early drug studies. Cooperation by physicians, potential subjects and others involved in drug evaluation studies is advocated. Progress in therapeutics is being seriously jeopardized by the deployment of resources to projects that have little relevance. Personnel is often diverted to the study of time honored therapeutic agents whose safety is not in question, but whose therapeutic performance has not been evaluated by modern techniques. The use of manpower for these studies where investigational resources are limited is condemmed.

167120 no author. no address Tight new rules for methaqualone. **Medical World News. 14(43):27, 1973.**

Research on the effects of methaqualone overdose which led to tightened rules regarding prescription of this nonbarbiturate, sedative hypnotic drug is reported. Since 1971 reports have

17
167120

been increasing on the incidence of dependence, overdose, and death attributed to abuse of the drug, as a result of which it came under the control of Schedule 2 of the U.S. Controlled Substances Act in 1973. Analysis of blood samples from 98 overdose victims indicated that although fatal consequences are rare from overdose of methaqualone alone, when used in combination with other drugs and in amounts over 6gm, such results can occur.

AUTHOR INDEX

[The 6-digit number is the abstract accession number. The next two digits are the issue number; digits after hyphen are the category number.]

A

ABE K 154980 04-09
ABE Y 158488 04-04
ABRAMS R 164719 04-09
ABRAMSKY O 156778 04-11
ABREU LA 163630 04-03
ABREU RR 163630 04-03
ABUZZAHAB FS 156643 04-08, 166715 04-08
ADAM N 151991 04-14
ADAMS HR 162055 04-02
ADAMSON L 155436 04-13, 155525 04-08, 156741 04-08
ADAMSON RH 167042 04-01
ADLARD BPF 159355 04-03
ADVANI GB 156359 04-07
AFANAS'EV YI 151810 04-11
AFIFI A 166694 04-03
AGHAJANIAN GK 157111 04-03, 162974 04-03
AGNOLI A 150631 04-15
AGRAWAL SM 156359 04-07
AGUE C 157150 04-14
AGUGGINI G 150836 04-13
AGURELL S 156799 04-03, 156801 04-03, 158770 04-16
AIROLDI L 166691 04-03
AKERA T 156640 04-03
AKIYAMA M 158493 04-04
AL-SARRAJ S 156761 04-01, 156762 04-01
ALBERNAZ PLM 165755 04-12
ALESSANDRI L 149744 04-11
ALEXANDERSON B 160469 04-13
ALI A 156872 04-01
ALINO JJL 161386 04-09
ALLEN JG 159552 04-15
ALLEN RP 151592 04-15
ALLEN SR 163746 04-14
ALLIEZ MJ 150645 04-09
ALLTOP LB 157343 04-14, 157344 04-13
ALMY GL 162172 04-09
ALTIER H 163773 04-14
ALTMAN H 152867 04-11, 152868 04-11, 152899 04-17, 161818 04-14
ALVAREZ-MENA SC 152961 04-15
ALVES CN 159568 04-04
AMDISEN A 155042 04-15, 155043 04-15
AMIDON EL 158302 04-13
AMIN M 160643 04-11
AMIT Z 153571 04-03
ANAGNOSTE B 149651 04-03, 156766 04-03, 158274 04-03
ANANTH JV 161582 04-14, 163682 04-11, 163683 04-09
ANDELSKI A 152085 04-15
ANDEN N 150664 04-03, 156765 04-03, 166976 04-13
ANDERSON EG 162893 04-03
ANDERSON J 166982 04-13
ANDERSON JA 156741 04-08
ANDERSON JE 167040 04-04
ANDERSON MS 155252 04-03
ANDRE E 150646 04-15
ANDREASEN PB 160799 04-03
ANDREYEVA NN 151806 04-11
ANDRY DK 150312 04-04
ANGRIST B 150294 04-07, 163754 04-08, 166068 04-14
ANSELMI B 150670 04-15
ANSTEE BH 153122 04-15
ANTHONY M 151201 04-11
ANTONINI F 160138 04-15
AOYAGI M 162136 04-03
APPEL JB 166728 04-04
ARAKI K 158476 04-03
ARAT M 166733 04-08
ARBIN A 167018 04-03
AREFOLOV VA 162922 04-03
ARGYLE E 150386 04-03
ARIAS LP 160649 04-03
ARVELA P 163632 04-05
ASBERG M 158770 04-16, 166987 04-03
ATACK CV 150402 04-03
ATKINSON RC 153108 04-14
ATKINSON RL 156770 04-11
AUGULIS V 157146 04-04
AVERBAKH YK 151810 04-11
AVIS HH 157341 04-04
AVRUSKIN TW 160653 04-13
AXELROD J 154364 04-03, 154368 04-03, 157109 04-03, 159369 04-03, 161892 04-17
AYD FJ 152168 04-15
AYHAN IH 150667 04-04
AYUSO GUTIERREZ JL 151394 04-10
AZZARO AJ 166696 04-03

B

BABCOCK PA 150419 04-01
BAILEY DW 157099 04-04
BAKER JD 158779 04-08
BAKER WW 162047 04-03
BALDESSARINI RJ 158176 04-15, 159449 04-03, 160637 04-03, 166000 04-03
BALDY-MOULINIER M 160649 04-03
BALLINGER BR 150293 04-13
BALONOV LY 152101 04-03
BALSTER RL 155411 04-04
BALZAMO E 152044 04-03
BAN TA 153794 04-10, 155273 04-17, 160643 04-11, 163682 04-11, 163683 04-09, 163999 04-08
BANDONI AL 150416 04-01
BAPNA JS 166732 04-03
BARAK AJ 163637 04-05
BARAN L 156752 04-04, 166695 04-03
BARBA C 150631 04-15
BARCELLOS FERREIRA A 151268 04-11, 151268 04-11
BARFKNECHT CF 157068 04-03
BARKOV N 160537 04-13
BARNETT A 155243 04-04, 158295 04-03
BARNETT L 164240 04-02
BARONDES SH 150151 04-04
BARONI A 160138 04-15
BARRETT J 155902 04-16
BARRISH HH 163512 04-16
BARRY H 157142 04-03
BARTHOLINI G 156797 04-03, 160474 04-03
BARTOSZEWICZ S 150748 04-09
BASELT RC 152098 04-03
BATES DE 160477 04-14
BATTIG K 163020 04-04
BATTISTA AF 149651 04-03, 158274 04-03
BAUER GE 160939 04-05
BAUM M 152525 04-04
BAUMGARTEN HG 163697 04-03
BEATON J 162292 04-03
BEATON JM 157039 04-04
BECKER HS 150615 04-17
BECKER MH 163002 04-17
BECKETT AH 151633 04-13, 151634 04-03, 156761 04-01, 156762 04-01, 163800 04-13, 165998 04-06
BECKMANN H 166960 04-09
BEDARD P 150219 04-11
BEELEN TCM 160468 04-03
BELCH P 163777 04-14
BELESLIN DB 162056 04-03
BELL DS 157345 04-12
BENINGTON F 162292 04-03
BENNETT DR 152131 04-13
BENSON K 160216 04-08
BENTE D 156849 04-09
BENTLEY R 165621 04-08
BERGER BD 158280 04-04
BERGNER PE 152911 04-16
BERNADSKA A 156552 04-11
BERNER W 150323 04-13
BERNSTEIN A 150614 04-17, 158625 04-17
BERRIDGE MJ 162336 04-03
BERRILL WT 152032 04-15
BERTOLETTI P 150623 04-17
BERTONI R 150254 04-11
BESCHOREN SOURZA T 151268 04-11
BESZTERCZEY A 161582 04-14
BETZ AL 151733 04-03
BEVAN P 156758 04-03
BEYEL V 153796 04-17
BHAGAT B 160641 04-04
BHARGAVA HN 166694 04-03
BHARGAVA KP 163797 04-03
BIALEK D 160457 04-03
BIANCHI CP 161731 04-03
BIERMAN CW 152066 04-11
BIRCH H 160477 04-14
BIRKETT DP 152210 04-07
BISBEE DSP 150264 04-04
BISHOP G 163680 04-08
BISHOP MP 163680 04-08
BJONDAHL K 163632 04-05
BJORKLUND A 163697 04-03
BLACKWELL B 163165 04-17, 163331 04-11, 167108 04-17
BLAKE DE 166698 04-03
BLANTON CD 156876 04-01
BLASIG J 157141 04-03
BLOOM FE 151429 04-03, 164836 04-03
BLUM M 155255 04-13
BLUNDELL JE 156804 04-03, 156815 04-03
BOAKES RJ 156803 04-03
BOBILLIER P 166692 04-04
BOGGAN WO 160770 04-03, 162273 04-03
BOHNER B 162046 04-03
BOISSIER JR 163760 04-04
BONN JA 153608 04-10
BONNEM EM 150298 04-04
BOOKER HE 158152 04-11
BOOTH DA 150353 04-03
BORBELY AA 157143 04-03
BORBERG S 166977 04-08
BORG H 156799 04-03
BORGA O 156650 04-06
BORGEN LA 150414 04-04
BOUCHER R 163767 04-03
BOUDIN G 150220 04-11
BOULLIN DJ 150316 04-03
BOULNOIS J 151049 04-15
BOUSQUET T 155888 04-15
BOWEN FP 163805 04-13
BOWERS MB 152122 04-13
BOZZA-MARRUBINI M 158297 04-17
BOZZI A 166700 04-03
BRADLEY RJ 162292 04-03
BRADSHAW CM 156758 04-03, 158768 04-03, 162439 04-03
BRADY E 163805 04-13
BRADY LR 150411 04-01, 150412 04-01
BRADY RO 156816 04-03
BRAMMER SR 156770 04-11
BRAMSON SM 165679 04-17
BRANCONNIER R 150665 04-08
BRAUDE MG 156321 04-03
BRAUN BL 150419 04-01
BRAUN JJ 155341 04-05
BRAUN U 165997 04-01
BRAUZER B 152211 04-09, 156938 04-16, 158972 04-09
BRAWLEY P 162440 04-03
BRDJOVIC P 152085 04-15
BRECKENRIDGE A 158303 04-14
BREESE GB 157344 04-13
BREESE GR 155252 04-03, 155253 04-03, 157117 04-03, 157140 04-04
BREMOND G 150254 04-11
BRETAS AD 156825 04-03
BREZINOVA V 155436 04-13
BRIANT RH 150827 04-15, 152142 04-03
BRIDGER WH 166067 04-04
BRIDGES PK 156741 04-08
BRIER CG 164855 04-01
BRIGHT TP 150404 04-15
BRIGHTWELL DR 166071 04-13
BRIMIJOHN S 162880 04-13
BRISTOL ML 157300 04-17
BROCH OJ 163321 04-03
BRODY TM 156640 04-03
BROE GA 153263 04-11
BRONHEIM LA 163682 04-11, 163683 04-09
BROWN C 165371 04-11
BROWN CR 151156 04-15
BROWN D 162170 04-11
BROWN DJ 150404 04-15, 166720 04-14

BROWN JN 152032 04-15
BROWN R 155904 04-04, 163802 04-03
BROWN SS 151154 04-13
BROWN WT 150798 04-09
BROWNSTEIN M 159369 04-03
BRUCE RB 155055 04-08
BRUNIA CHM 152074 04-14
BRUNNER RL 157094 04-03
BRYANT RC 162276 04-04
BUCALOSSI A 160138 04-15
BUCHSBAUM M 156155 04-11
BUCK WB 166736 04-05
BUCKNER CD 150843 04-15
BULPITT CJ 162720 04-13
BUNCE ME 155909 04-03
BUNNEY BS 157111 04-03, 162974 04-03
BUNNEY WE 155240 04-17
BUNTIN J 162667 04-03
BURDOCK EI 155265 04-17
BURGOYNE RW 155794 04-10
BURKMAN AM 161142 04-03
BURNS-COX C 151049 04-15
BUROV YV 162920 04-04
BURROWS GD 156416 04-09
BUSER P 161340 04-03
BUSHNELL OA 157300 04-17
BUTLER RN 151512 04-11
BUTTRAM JM 165680 04-03
BYCK R 150383 04-03
BYRD LD 157119 04-04
BYRNE WL 162276 04-04

C

CABLE CG 160477 04-14
CADORET R 152715 04-14
CAFFEY EM 159778 04-09
CAHOON DD 150264 04-04
CAIRD FI 153263 04-11
CALDWELL J 155908 04-13
CALINI EA 150778 04-13
CALNE DB 159552 04-15
CAMERON OG 166728 04-04
CAMJANOVICH RP 159567 04-03
CAMMER L 163329 04-10
CAMPBELL M 150432 04-08, 152208 04-08, 155258 04-08
CAMPBELL P 163683 04-09
CANCRINI L 150623 04-17
CANDY J 156803 04-03, 162647 04-09
CANN HM 152066 04-11
CAPEK P 162880 04-13
CAPOBIANCO P 149745 04-11
CAPPELL H 153100 04-13, 153107 04-04, 166165 04-04
CARATSCH CG 156813 04-03
CARBONE E 156816 04-03
CARBONERA D 150833 04-13
CARDER SL 164217 04-08
CARENZI A 152199 04-03, 152549 04-03
CARLINI EA 158003 04-04, 159568 04-04
CARLSON HE 156771 04-13
CARLSSON A 150402 04-03, 151683 04-13, 155904 04-04
CARMICHAEL FJ 157063 04-03
CARMON A 156778 04-11
CARROLL BJ 158261 04-15
CARROLL FI 164240 04-02
CARSKADON M 158300 04-14
CARSON FW 166901 04-06
CARSON T 166736 04-05
CARTER TN 164699 04-11
CARVALHO FV 163778 04-04
CASACCHIA M 150631 04-15
CASARETT LJ 152098 04-03
CASHAW JL 160546 04-03
CASSANO GB 158285 04-14, 160478 04-03
CASSENS GP 157045 04-04
CASSWELL S 149649 04-14
CASTALDO V 157496 04-14
CASTANEDA L 166721 04-08
CASTELLANO C 150350 04-04
CASTROGIOVANNI P 158285 04-14
CAVALCA GG 149746 04-10
CAWLEY RH 162639 04-09
CELESIA GG 158152 04-11
CEREDA E 167232 04-13
CHAFETZ L 150418 04-01
CHANDRA B 154783 04-11
CHAPLIN MD 163635 04-05
CHARALAMPOUS KD 156940 04-10
CHARAP AD 157152 04-03, 163776 04-03
CHARNESS ME 153571 04-03
CHASE TN 158154 04-13
CHATEAU R 150255 04-09
CHAU TT 157066 04-05
CHAUDHRY ZA 150797 04-15
CHEMBURKAR PB 166717 04-13
CHEMERINSKI E 157155 04-03
CHEN CH 155797 04-09
CHEN T 150418 04-01
CHENEY D 158316 04-03
CHENEY DL 152546 04-03, 162398 04-03, 163763 04-03
CHENG HC 157068 04-03
CHERKIN A 157036 04-04
CHERNIK DA 161391 04-14
CHIEFFO V 150424 04-03
CHIN L 159565 04-03, 163803 04-03, 166001 04-04
CHISZAR D 152191 04-04
CHO AK 156906 04-06, 163188 04-03
CHO DW 152899 04-17, 161818 04-14
CHOLEWA M 156551 04-15
CHRIST W 166689 04-03
CHRISTENSEN DE 161049 04-14
CHRISTENSEN F 150582 04-03
CHRISTENSEN HD 163022 04-13, 164240 04-02
CHRISTIANSEN J 166984 04-03
CHUN MC 150415 04-02
CHURKIN EA 151809 04-11
CHUTE DL 153267 04-14, 163761 04-04
CLAGHORN JL 152212 04-11
CLANON TL 161581 04-14
CLARE RA 151163 04-13
CLARK WG 155906 04-03, 156819 04-03
CLAUSEN J 165416 04-14
CLAVERIA LE 159552 04-15
CLOUET DH 157185 04-03
CLOUTIER G 159368 04-03
COCHRANE CM 161731 04-03
COHEN G 157178 04-03, 163764 04-03
COHEN ME 156808 04-04
COHEN MJ 157153 04-14
COHEN PS 151228 04-04
COHEN S 166390 04-09
COHN D 151305 04-07
COIGNET JL 161340 04-03
COLASANTI B 153103 04-03, 160634 04-03
COLE JM 162274 04-04
COLE JO 153096 04-08, 159348 04-15, 160217 04-14, 162171 04-08
COLLINS AC 160546 04-03
COLLINS P 150432 04-08, 150835 04-08
COLLISTER BC 151439 04-09
CONE EJ 152201 04-13
CONLEY DP 162069 04-11
CONNELLY JF 157044 04-04
CONNELLY JM 157044 04-04
CONNERS CK 154739 04-14
CONNEY AH 157146 04-04, 158774 04-03
CONSOLO S 160475 04-03
CONSROE PF 166001 04-04
CONTI L 158285 04-14
COOK L 158005 04-04, 158281 04-04
COOPER BR 157117 04-03, 157140 04-04
COOPER RM 152437 04-03
COOPER TB 152911 04-16, 155055 04-08, 155256 04-15
COPPERMAN G 150425 04-11
COPPERMAN R 150425 04-11
CORBETT JA 151452 04-11
CORCORAN ME 153571 04-03
CORRODI H 155903 04-03, 160472 04-03
COSIC V 152085 04-15
COSTA E 151643 04-03, 152199 04-03, 152543 04-03, 152546 04-03, 152549 04-03, 157000 04-03, 158182 04-03, 158316 04-03, 158570 04-03, 162398 04-03, 163763 04-03, 164834 04-03, 165941 04-03
COSTALL B 156824 04-03
COTE JM 153614 04-11
COTE L 157178 04-03
COTT A 163998 04-08
COTZIAS GC 162138 04-06
COUSSENS WR 162279 04-03
COUSSIO JD 150416 04-01
COUTTS RT 151634 04-03, 165998 04-06
COX AC 156877 04-03, 156879 04-03
COYLE IR 163772 04-03
CRABTREE JM 161125 04-04
CRADE M 157496 04-14
CRADOCK JC 156764 04-05
CRAIG CR 160639 04-03
CRAMER H 158154 04-13
CRAMMER JL 153121 04-09
CRAVENS J 166723 04-14, 166724 04-14, 166725 04-14
CRAVES FB 157038 04-03
CRIFO C 166700 04-03
CRITCHLOW V 162049 04-03
CROFFORD M 159654 04-03
CROW LT 154613 04-03
CROW TJ 159450 04-08
CROWDER WF 162279 04-03
CROWLEY WR 150380 04-04
CROWN P 163747 04-13
CULLEN J 159391 04-04
CURRAN JP 160825 04-13
CURRY AS 167246 04-15
CURRY SH 156741 04-08
CUSHMAN P 160749 04-13
CZAPLYGINA SR 156555 04-10
CZARNECKA E 151376 04-15, 151385 04-03
CZERWINSKI A 150748 04-09

D

D SILVA JAF 150413 04-06
D'ELIA G 166985 04-10
DAEMS J 153042 04-04
DALY J 162894 04-03
DAMON RA 150422 04-04
DANDIYA PC 166732 04-03
DANECKA U 151380 04-11
DARDER CIRERA JM 151395 04-11
DARLEY CF 153108 04-14
DARZYNKIEWICZ-CZERNIK D 151385 04-03
DAVID R 150432 04-08
DAVIDSON AB 158281 04-04
DAVIDSON IE 155902 04-16
DAVIES B 156416 04-09
DAVIGNON JP 156764 04-05
DAVIS D 155277 04-17
DAVIS JM 158261 04-15, 158261 04-15, 160824 04-13, 161907 04-13, 164715 04-04, 166716 04-13
DAVIS JN 150402 04-03, 155904 04-04
DAVIS KH 156763 04-06, 163022 04-13
DAVIS RC 159472 04-17
DAVIS RL 166033 04-15
DAVIS TRA 163750 04-04
DAVIS VE 160546 04-03
DAVIS WM 150414 04-04, 151630 04-04, 152213 04-04, 162279 04-03
DE CANAL MA 161378 04-03
DE CAROLIS AS 158004 04-04
DE JONGE GA 158013 04-13
DE LORES ARNAIZ GR 161378 04-03
DE MELLO AC 158003 04-04
DE OLIVEIRA LF 156825 04-03
DE PACHECO BR 161378 04-03
DE PACHECO MM 161378 04-03
DE SOUZA SW 159355 04-03
DEBERDT R 150554 04-10
DEFEUDIS FV 163779 04-03
DEGIOVANNI A 161278 04-11
DEGUCHI T 154364 04-03, 154368 04-03
DEITRICH RA 166699 04-03
DEL BIANCO PL 150670 04-15
DELGADO JMR 158288 04-04
DEMBICKI EL 158121 04-14
DEMBIEC D 163764 04-03
DEMENT WC 158300 04-14
DENBER H 150644 04-09
DENBER HCB 150643 04-08, 155269 04-17
DENHAM J 155525 04-08
DENIKER P 150256 04-15, 155272 04-17
DEPIANTE R 167043 04-03
DERBY BM 156739 04-07
DES ROSIERS M 164809 04-03
DESMEDT LKC 163758 04-04
DEVEBER GA 151155 04-13
DEWEY WL 157066 04-05
DEWHURST WG 155906 04-03
Di ROCCO C 158291 04-13
DIETRICHSON P 151688 04-11

DIMASCIO A 150292 04-04, 157291 04-17, 158289 04-04
DIMOND RC 156770 04-11
DITMAN KS 166390 04-09
DOHI T 158477 04-03
DOLFINI E 156759 04-03
DOLLERY CT 150827 04-15, 151163 04-13, 152142 04-03, 162720 04-13
DOLS LCW 161905 04-09, 166726 04-13
DOMENICHINI E 150833 04-13, 167232 04-13
DOMINO EF 151907 04-03, 156812 04-01, 157038 04-03, 163755 04-14
DONLON PT 163333 04-08
DONNELLY KJ 153054 04-14
DORNBUSH R 163747 04-13
DOTEUCHI M 152543 04-03, 164834 04-03
DOTTI A 150623 04-17
DOUGHERTY J 155410 04-04
DOUMA G 153042 04-04
DOUST JWL 161388 04-08
DOWSON JH 159566 04-03
DRAFFAN GH 151163 04-13
DRAKE ME 160690 04-15, 160690 04-15
DRASKOCZY PR 166027 04-03
DRESSLER K 152143 04-12, 158003 04-04
DREW WG 154814 04-04, 157182 04-04
DRISCOLL P 163020 04-04
DROLET A 150832 04-08
DRUMMOND GI 160826 04-13
DUBINSKY B 150301 04-04, 161962 04-04
DUFOUR H 157234 04-09
DUHAULT J 152067 04-03
DUMERC C 161279 04-11
DUNCAN S 157148 04-04
DUPONT E 151689 04-07, 151694 04-11
DUTTON GJ 151351 04-03
DYBING E 150583 04-03
DYCK PJ 162880 04-13
DYKES MHM 156497 04-17
DYSON WL 150314 04-13

E

EARLL JM 156770 04-11
EBARA T 158330 04-13
EDE MCM 166719 04-13
EDELSTEIN EL 160215 04-14
EDWARDS K 150580 04-03
EGILMEZ S 164219 04-10
EICHELMAN B 152432 04-04, 153202 04-03, 155248 04-04
EIDUSON S 158570 04-03
EIRICK R 157084 04-04
EL-YOUSEF MK 161907 04-13
ELEFTHERIOU BE 157099 04-04
ELIASOPH I 155366 04-09
ELIE R 160642 04-13
ELKES A 153121 04-09
ELLENHORN MJ 156641 04-15
ELLINWOOD EH 153105 04-04, 166064 04-03
ELLIOTT C 161630 04-17
ENDRENYI L 153107 04-04
ENELOW AJ 160696 04-17
ENGEL J 163802 04-03
ENGELHARDT DM 150434 04-08
ENSOR CR 162046 04-03
EPPS JO 157044 04-04
EPSTEIN LJ 158625 04-17
ERICKSON CK 158054 04-03, 158057 04-06, 158058 04-04, 165634 04-03
ERIKSSON CJP 160542 04-03
ERWIN CW 156156 04-15, 162364 04-14
ERWIN VG 166699 04-03
ESCOBAR JI 166729 04-09
ESSIEN EE 151633 04-13
ESSMAN WB 151705 04-03, 160470 04-03
ESTEVEZ VS 159816 04-03
ETIENNE T 150646 04-15
ETKIN MW 152191 04-04
EVANS BD 150298 04-04
EVANS HL 159366 04-04
EVANS MA 166720 04-14
EVANS W 163331 04-11
EVENSON RC 152867 04-11, 152868 04-11, 152899 04-17, 161818 04-14
EVERETT GM 155244 04-03
EVERETT PB 167237 04-04

F

FABIAN HEM 157155 04-03
FABIANI JM 150220 04-11
FAESEL JHR 156872 04-01
FALK MA 160694 04-14
FALLICA AJ 152030 04-11
FANN WE 160824 04-13, 161907 04-13, 166019 04-13, 166364 04-11, 166716 04-13
FARAGALLA FF 162956 04-03
FARNSWORTH DL 163001 04-17
FARNSWORTH NR 163189 04-12
FAUERHOLDT L 160799 04-03
FEDER J 156849 04-09
FEHLING C 151690 04-11
FEIGENSON J 156739 04-07
FELDMAN S 156778 04-11
FELDSTEIN S 163747 04-13
FERNANDES M 166689 04-03
FERRANT J 161279 04-11
FERRARO DP 150388 04-04
FIELD J 156134 04-09
FIELD LH 159408 04-11
FILE SE 150671 04-04
FINCH L 156818 04-03
FINK M 155264 04-15, 163747 04-13
FINK R 157151 04-03
FINN R 166071 04-13
FINNERTY RJ 155792 04-10
FIORE JW 158295 04-03
FIORENTINO D 153796 04-17
FIRESTONE AF 156741 04-08
FIRKO M 156569 04-15
FIRTH H 165642 04-14
FISCHER E 162057 04-03
FISCHER JE 159449 04-03
FISCHER JF 150298 04-04
FISCHER P 152111 04-11
FISCHER R 162156 04-12
FISCHETTI M 167232 04-13
FISH B 150432 04-08, 152208 04-08, 155258 04-08
FISHER S 165189 04-17, 165416 04-14
FITZGERALD MX 150620 04-13
FLEISCHHAUER J 152089 04-15
FLEMENBAUM A 166729 04-09
FLEMING EW 160477 04-14
FLEMING RM 156819 04-03
FLENTGE F 166726 04-13
FLOOR-WIERINGA A 156817 04-13
FLORU L 156892 04-08, 164681 04-09
FLOYD A 152208 04-08
FOG R 150668 04-03
FOLDES A 151657 04-03
FORBES WB 160896 04-04
FORD DH 152196 04-03
FOREE DD 162325 04-04
FORMAN DS 156107 04-03
FORNEY RB 150404 04-15, 166720 04-14
FORREST FM 150831 04-07
FORREST IS 150831 04-07
FORREST WH 151156 04-15
FOX R 162156 04-12
FRACCHIA J 153796 04-17
FRAISSE B 150256 04-15
FRANK MJ 152961 04-15
FRANTZ AG 156772 04-13
FRAZER A 161731 04-03, 161732 04-13, 164720 04-09
FREED EX 159068 04-05
FREEDMAN DX 160646 04-03, 160647 04-03, 162273 04-03
FREEMAN H 162646 04-08
FREEMAN JW 159585 04-05
FREEMAN RD 166484 04-17
FREEMON FR 166734 04-08
FRENCH SW 160202 04-03
FRENI S 151265 04-09
FREY H 166690 04-03
FRIED FE 163994 04-09
FRIED P 150420 04-04
FRIEDHOFF A 155266 04-17
FRIEDMAN E 150423 04-04, 155210 04-03
FRIIS W 158279 04-03
FROMENT J 166692 04-04
FUJII O 160038 04-05
FUJIMORI M 154970 04-03, 161119 04-04
FUJIMOTO JM 152162 04-03
FUJITA Y 158506 04-03
FUJIWARA J 158500 04-09
FUJIWARA M 158492 04-04, 158494 04-04
FUKUI K 158482 04-03
FULGINITI S 158772 04-04
FULLER RW 155493 04-03, 163804 04-03
FUMI S 149744 04-11
FUNADA K 158488 04-04
FURLONG FW 153613 04-09
FUXE K 149651 04-03, 155903 04-03, 158274 04-03, 160472 04-03, 162894 04-03

G

GAEBELEIN C 153171 04-03, 153217 04-04
GAENSLER EA 150620 04-13
GAGLIARDI VJ 166735 04-15
GAIND R 153122 04-15, 155207 04-09
GAL EM 149650 04-03
GALANO A 150776 04-10
GALBRECHT C 163331 04-11
GALFI B 160216 04-08
GALLAGHER BB 160767 04-03
GALLANT D 159348 04-15, 163680 04-08
GALOSY R 153171 04-03, 153217 04-04
GALVAN L 155273 04-17, 160643 04-11
GANANCA MM 165755 04-12
GANNON P 166733 04-08
GARATTINI S 155907 04-03, 156759 04-03, 160462 04-17, 160466 04-03, 160475 04-03, 166691 04-03
GARCIA DE JALON PD 165411 04-03
GARDNER EA 159348 04-15
GARDNER JD 156869 04-03
GARDOS G 150665 04-08, 153096 04-08, 160217 04-14, 162171 04-08
GARG BD 157302 04-01
GARLE M 156650 04-06
GARRETT ER 150409 04-03
GAURON EF 157043 04-04
GAUT ZN 156647 04-13
GAUTIER J 153614 04-11
GAWIENOWSKI AM 150422 04-04
GAY GR 151309 04-04
GEHRES LD 157125 04-04
GEISLER A 163320 04-03
GELLER E 158570 04-03
GENOVESE E 163775 04-03
GENSLER F 163331 04-11
GEORGE AJ 158769 04-03
GERALD MC 156153 04-15, 156821 04-03
GERBER CJ 156156 04-15, 162364 04-14, 166364 04-11
GERBER GJ 154210 04-04
GERSHON S 150294 04-07, 150423 04-04, 150834 04-07, 150835 04-08, 155210 04-03, 155265 04-17, 156811 04-02, 163695 04-03, 163754 04-08, 166068 04-14
GESSNER PK 157065 04-03
GEY KF 160476 04-03
GEYER HM 163695 04-03
GEYER MA 155245 04-04, 162277 04-04, 163450 04-04
GHISELLI WB 159366 04-04
GIANTURCO DT 162364 04-14
GIBB JW 156644 04-03
GIBBERD FB 151048 04-15
GILBERT JG 153054 04-14
GILBOE DD 151733 04-03
GILLBE C 159450 04-08
GILLERAN TG 151906 04-03
GINESTET D 155272 04-17
GINSBURG SM 163021 04-03
GIRAUD J 150645 04-09
GIRI SN 166790 04-13
GIURGEA C 159396 04-07
GJESSING LR 160826 04-13
GLASSMAN AH 156157 04-15
GLICK SD 157152 04-03, 163776 04-03
GODA G 151304 04-07
GOENECHEA S 151154 04-13
GOIC A 150776 04-10
GOLD AP 152066 04-11
GOLDBERG AM 166785 04-05
GOLDBERG HL 155792 04-10
GOLDBERG J 160217 04-14
GOLDBERG ME 150301 04-04, 161962 04-04, 167040 04-04
GOLDBERG SR 159367 04-04
GOLDFIELD MD 155041 04-15

GOLDFINE ID 156869 04-03
GOLDSTEIN A 157318 04-03
GOLDSTEIN BJ 152211 04-09, 156938 04-16, 158972 04-09
GOLDSTEIN DB 163748 04-03
GOLDSTEIN L 150964 04-08
GOLDSTEIN M 149651 04-03, 156766 04-03, 158274 04-03
GOLDSTEIN MJ 162169 04-08
GOLDSZTAJN M 156568 04-15
GOMER FE 152354 04-03
GOMEZ H 154336 04-13
GOMEZ L 163683 04-09
GOMI Y 158476 04-03
GOMITA Y 158492 04-04
GOODGOLD A 156739 04-07
GOODMAN LE 161385 04-11
GOODWIN D 152715 04-14
GOODWIN FK 164871 04-11, 166960 04-09
GOODWIN GM 162892 04-03
GORIDIS C 160457 04-03
GOTTSCHALK LA 160477 04-14
GOUDIE AJ 163759 04-04
GOULD IA 150620 04-13
GRABOWSKA M 166695 04-03
GRABOWY R 166064 04-03
GRAEBNER RW 158153 04-15
GRAHAM DT 158054 04-03, 158057 04-06, 158058 04-04
GRAHAM LT 159569 04-03
GRAM LF 166982 04-13, 166984 04-03
GRANSTRAND B 156799 04-03
GRANT LD 157140 04-04
GRANT MJ 151224 04-04
GRANT RM 151224 04-04
GRAVE GD 164809 04-03
GREEN AL 161145 04-13
GREEN JB 165193 04-13
GREEN JP 152143 04-12, 158003 04-04
GREEN RP 150550 04-11
GREENBERG RP 165189 04-17
GREENBLATT DJ 165463 04-15
GREENGRASS PM 152045 04-03
GREENHILL LL 156155 04-11
GREENOUGH RC 150418 04-01
GRIFFITHS RR 162530 04-04, 164545 04-04
GRILLY DM 150388 04-04
GRODSKY FS 158005 04-04
GROF S 160221 04-11, 160802 04-13, 161385 04-11
GROUPE A 161581 04-14
GRYNAEUS T 160216 04-08
GUAITANI A 160466 04-03, 166691 04-03
GUARINO AM 156764 04-05
GUBITZ RH 156640 04-03
GUELEN PJM 160468 04-03
GUIDOTTI A 152199 04-03, 152549 04-03, 158182 04-03
GUILLARD A 150220 04-11
GUPTA ML 163797 04-03
GUPTA TK 163797 04-03
GURTOO HL 150410 04-01
GUSTAFSSON B 158770 04-16
GUTIERREZ JLA 161386 04-09
GUTOVA M 156650 04-06
GUTRECHT JA 166696 04-03
GUY WH 155277 04-17
GUZ I 152209 04-09
GUZMAN M 163769 04-04

H

HAARSTAD VB 156812 04-01
HAAS HL 162893 04-03
HADLEY KW 157301 04-17
HAEFELY W 158293 04-03
HAEUSLER G 156818 04-03
HAFFTER C 156595 04-11
HAGHSHENASS M 152875 04-14
HAGUENAU M 150220 04-11
HAHER EJ 166718 04-08
HAIDER I 165642 04-14
HAIN-MAZURKIEWICZ G 151376 04-15
HAJIOFF J 163751 04-10
HAJOS GT 155907 04-03
HAKER O 151305 04-07
HAKIM R 152162 04-03
HALARIS AE 160647 04-03
HALBERG F 156809 04-04
HALL PH 149717 04-14
HALMI KA 166071 04-13
HAMBACHER WO 152030 04-11
HAMID TA 152708 04-08
HANDLEY GW 163119 04-04
HANIN I 152546 04-03, 158316 04-03, 162398 04-03, 163763 04-03
HANLON DP 156322 04-03
HANSEN E 151689 04-07
HANSEN MG 150352 04-04
HANSEN S 160826 04-13
HANZAL F 151004 04-11
HAPPY JM 155259 04-03
HARDESTY AS 155265 04-17
HARLIN VK 158345 04-11
HARPER MA 165621 04-08
HARPER RW 163694 04-15
HARRIGAN SE 158321 04-04
HARRIS JE 160637 04-03, 166000 04-03
HARRIS LS 156827 04-06, 157066 04-05
HARRIS RF 152036 04-15
HARRISON J 153608 04-10
HARTEL G 155040 04-15
HARTLEY R 155905 04-13, 165999 04-03
HARTMANN E 166723 04-14, 166724 04-14, 166725 04-14
HASEGAWA Y 150325 04-04
HASHI K 162136 04-03
HASTINGS L 157094 04-03, 166787 04-04
HAUBRICH DR 166698 04-03
HAWKINS D 150971 04-08, 151163 04-13
HAWKINS RA 162391 04-03
HAWKSWORTH GM 155908 04-13
HAYDEN J 151156 04-15
HAYWOOD EF 156754 04-15
HAYWORTH RM 155793 04-10
HEACOCK RA 161140 04-01
HEFNER MA 150301 04-04, 167040 04-04
HEIKKILA RE 157178 04-03
HEINDEL ND 150415 04-02, 156878 04-01
HEISS W 163633 04-03
HELLER B 162057 04-03
HELMCHEN H 156849 04-09
HELWIG H 156847 04-11
HEMMINGS S 160826 04-13
HENDERSON E 152870 04-03
HENDLER N 159391 04-04
HENRIKSSON BG 157149 04-04, 158000 04-04
HERBERG LJ 156815 04-03
HERKERT E 166718 04-08
HERMANN WM 155275 04-14
HERRERA EE 166693 04-03
HERSKOWITZ A 158153 04-15
HERZ A 157141 04-03
HESBACHER EN 160218 04-17
HESBACHER PT 160218 04-17
HESELTINE GFD 153606 04-10
HESTER JB 158279 04-03
HETEY S 161142 04-03
HEWITT AB 160975 04-14
HILL R 166689 04-03
HIMWICH HE 154970 04-03, 161119 04-04
HIMWICH WA 151707 04-03
HINRICHS R 163161 04-04
HIPPIUS H 156849 04-09
HIRAYAMA M 154979 04-09
HIROMOTO H 162136 04-03
HIROTA K 158514 04-03
HIRSCHFIELD W 152210 04-07
HITZEMANN RJ 151907 04-03, 157038 04-03, 166697 04-03
HO BT 162959 04-04
HO IK 156822 04-03
HO T 163782 04-13
HODDES E 158300 04-14
HODKOVA J 167017 04-01
HODSHON BJ 156906 04-06, 163188 04-03
HOFFER A 163997 04-08
HOFFMAN SP 150434 04-08
HOFFMEISTER F 157064 04-04
HOKFELT T 155903 04-03
HOLLANDER C 155255 04-13
HOLLEY JR 157148 04-04
HOLLISTER LE 153106 04-13, 153795 04-08, 156740 04-11, 158284 04-14, 159347 04-17, 167106 04-14
HOLLISTER TE 153108 04-14
HOLM P 151689 04-07
HOLMES V 163782 04-13
HOLMSEN R 151691 04-11, 151696 04-11
HOLMSTEDT B 158770 04-16
HOLTZMAN SG 163757 04-03
HOLUBEK J 167017 04-01
HOLZ R 154364 04-03, 159369 04-03
HOOGE JP 161331 04-11
HORLINGTON M 151591 04-04
HORN AS 161380 04-06
HORST WD 156823 04-06
HOSHINO K 165730 04-05
HOSLI L 162893 04-03
HOSOYA E 158484 04-03
HOUSER VP 153569 04-04, 154639 04-04
HOWARD A 154482 04-17
HOWARD J 153171 04-03, 153217 04-04
HOWARD WJ 156770 04-11
HOWLAND C 162636 04-09
HOYER J 163633 04-03
HOYOS JM 150774 04-13, 150775 04-07
HRACHOVEC JP 166386 04-11
HRDINA PD 155494 04-03, 156807 04-03
HRUSKA RE 157154 04-04
HSU W 166733 04-08
HUANG J 159826 04-03
HUG CC 151631 04-03
HUGGINS P 163751 04-10
HULL RD 160939 04-05
HUNTER WM 155436 04-13
HURST PE 156754 04-15
HUSBAND CA 150420 04-04
HUSSAIN MZ 150797 04-15
HUSTON JP 157143 04-03
HUSZKA L 161388 04-08
HUTCHINS DA 158002 04-03

I

IBUKA N 150325 04-04
IGLESIAS MLM 161386 04-09
IGNATOWICZ R 156566 04-11
IGON'KINA SI 162921 04-03
IKEDA H 158504 04-04
IKEDA S 158509 04-03
ILIEV V 150964 04-08
ILJUCZENOK RJ 156555 04-10
INANAGA K 166941 04-13
INNES EM 152036 04-15
INOUE M 160038 04-05, 165730 04-05
INOUE N 152978 04-17
INUZUKA T 165728 04-08
IPRUS-SHOTTER AV 151815 04-04
ISAACSON RL 152438 04-05
ISAC M 160215 04-14
ISHIGE K 166908 04-09
ISHIKAWA K 158493 04-04
ISOZAKI H 166941 04-13
ISRAEL Y 157063 04-03
ITIL TM 150349 04-13, 155268 04-17, 155276 04-17, 164219 04-10, 166733 04-08
ITO M 156810 04-04
ITO Y 160038 04-05
ITURRIAGA H 165995 04-03
IULIUCCI JD 159483 04-03
IVENS C 156814 04-03
IVERSEN SD 163737 04-03
IWAHARA S 150325 04-04
IWASAKI M 158495 04-04, 158496 04-04
IWATA H 163019 04-05
IZQUIERDO I 157145 04-04, 167043 04-03
IZQUIERDO JA 157155 04-03

J

JACKSON NLP 162169 04-08
JACOBI P 152111 04-11
JACOBOWITZ DM 151654 04-03
JACOBSON A 152211 04-09, 158972 04-09
JAFFE J 155241 04-17
JAKUBCZAK LF 152354 04-03
JALFRE M 158293 04-03
JALOWIEC JE 152428 04-04
JAMES JF 156156 04-15
JAMES KE 151156 04-15
JAMES NM 161661 04-11
JAMET P 157233 04-09
JANIS RA 161144 04-03
JANOWSKY DS 158261 04-15, 161907 04-13, 166716 04-13
JARBE TUC 157149 04-04, 158000 04-04

JARRET R 150645 04-09
JARRETT DB 156416 04-09
JARVIK ME 157151 04-03, 165729 04-06
JEANNEAU A 163264 04-12
JENDEN DJ 156906 04-06
JENSEN PS 166986 04-09
JEWETT RE 163757 04-03
JOBE PC 159565 04-03, 163803 04-03
JOHNSON AC 152900 04-08
JOHNSON DAW 162646 04-08
JOHNSON EM 150315 04-03
JOHNSON ES 162440 04-03
JOHNSON GA 160230 04-01
JOHNSON GE 151155 04-13
JOHRI MBL 157139 04-03
JONES BE 150317 04-04
JONES CC 166960 04-09
JONES JR 153197 04-14
JONSSON G 151350 04-03, 162894 04-03
JONSSON J 158775 04-03
JOO F 162960 04-03
JORDAN LM 157112 04-03
JORDAN WS 152131 04-13
JORI A 156759 04-03
JOSEPH JA 161718 04-04
JOUNELA AJ 160147 04-15, 160201 04-04
JOUVET M 166692 04-04
JOVIC RC 156639 04-03
JUAN C 160653 04-13
JUDD LL 162169 04-08
JULIEN RM 152037 04-03
JULSRUD O 151692 04-11
JUS A 150832 04-08, 153614 04-11
JUS K 153614 04-11
JUSSEAUME P 150646 04-15

K

KAIM SC 158298 04-11
KALBHEN DA 165997 04-01
KALES A 158299 04-14
KAMEYAMA T 158486 04-04, 158487 04-03
KAMIOKA T 158491 04-04
KAMMERER T 157233 04-09
KANCZUCKA V 164679 04-13
KANEKO T 158508 04-04
KANETO H 158513 04-03
KANG S 158003 04-04
KAPPELL B 160464 04-05
KARASUYAMA N 165728 04-08
KARCZMAR AG 155242 04-03
KARHUNEN P 155040 04-15
KARI A 159067 04-14
KARIMOV RK 151768 04-08
KARKI NT 163632 04-05
KARNIOL IG 150778 04-13
KAROUM F 151643 04-03, 165941 04-03
KASHIWAGI M 157300 04-17
KATSURAGI T 158475 04-03
KATZ MM 155261 04-17
KAVAN EM 152037 04-03
KAWAHARA S 158514 04-03
KAWAJIRI M 158516 04-03
KAWAMURA K 158495 04-04, 158496 04-04
KAWAMURA Y 162136 04-03
KAWASAKI Y 158515 04-05
KAY HEM 152036 04-15
KAZAMATSURI H 166549 04-17
KEBABIAN JW 159484 04-01
KEEGAN DL 162361 04-15
KEHR W 150402 04-03
KEIDING S 160799 04-03
KELLER H 156797 04-03, 160474 04-03
KELLER WJ 150411 04-01
KELLEY JM 167042 04-01
KELLIHER GJ 166789 04-03
KELLY D 162647 04-09
KELTER A 157154 04-04
KEMA R 150581 04-03
KENNEDY C 164809 04-03
KENNY FM 152066 04-11
KENSLER CJ 163750 04-04
KENTSMITH DK 164699 04-11
KESKINER A 155888 04-15
KESTELOOT H 156817 04-13
KHAN AG 150797 04-15
KHAVARI KA 150321 04-06, 157147 04-04
KHAZAN N 152143 04-12, 153103 04-03, 160634 04-03
KHOGO K 158515 04-05
KIDD CB 150790 04-10
KIELHOLZ P 155271 04-17
KIES MW 152545 04-03
KILLAM EK 158290 04-03
KILLAM KF 158290 04-03
KIM EG 160230 04-01
KIM LI 161581 04-14
KIMISHIMA K 150397 04-03, 158497 04-03
KIMURA B 157029 04-11
KIMURA K 158507 04-03
KIMURA M 158506 04-03
KIMURA T 158488 04-04
KINTZLER C 161630 04-17
KIPLINGER GF 150404 04-15, 166720 04-14
KIRK L 166982 04-13, 166983 04-17, 166986 04-09
KIRSTEN EB 162958 04-03
KISARA K 158498 04-04
KITAGAWA S 158478 04-03
KITSIKIS A 157144 04-04
KIVIMAKI T 160147 04-15
KLAWANS HL 165191 04-13
KLEIN DF 150438 04-09, 153271 04-15, 154482 04-17, 164714 04-08
KLERMAN GL 153090 04-09, 154830 04-17
KLETT CJ 159778 04-09
KLINE FM 155794 04-10
KLING A 163161 04-04
KLINGNER A 163682 04-11, 163683 04-09
KLIPEC WD 157072 04-04, 157084 04-04
KNAPMAN WB 160975 04-14
KNAPTON PJ 152036 04-15
KNOBLOCH LC 150302 04-04
KNOTHE BUC 163694 04-15
KNOWLES RR 154336 04-13
KOBAYASHI K 158515 04-05
KOBAYASHI M 158495 04-04, 158496 04-04
KOBLICOVA Z 167017 04-01
KODA LY 156644 04-03
KOH C 150432 04-08
KOIZUMI J 150398 04-05, 152027 04-05, 152028 04-05
KOJIMA K 152436 04-05
KOJIMA S 158477 04-03
KOMAR D 150747 04-11
KONZETT H 150323 04-13
KOP P 152085 04-15
KOPIN IJ 154261 04-03
KORF J 166726 04-13
KORNHABER A 155886 04-10
KOROLENKO CP 156555 04-10
KOSERSKY DS 156827 04-06
KOSTOWSKI W 150406 04-04
KOTORII M 166941 04-13
KOWALCZYK K 156566 04-11
KOYAMA H 155553 04-01
KRAKOFF LR 163021 04-03
KRAKOWSKI AJ 161595 04-17
KRAUER B 151163 04-13
KRAVCHENKO AD 151807 04-11
KRAWECKI T 151380 04-11
KRELL RD 157302 04-01
KREMER D 158353 04-17
KRIP G 163780 04-03
KRISTOF M 151012 04-11
KRIVOY WA 162738 04-03
KRNJEVIC K 162437 04-03
KRYNICKI VE 157496 04-14
KRYZHANOVSKIY GN 162921 04-03
KUBENA RK 157142 04-03
KUBIK-BOGUCKA E 151385 04-03
KUBIS JF 153054 04-14
KUCHAR E 153100 04-13
KUKOPULOS A 161387 04-09
KULKARNI AS 152431 04-04, 152900 04-08, 163332 04-08, 165803 04-08
KULKARNI SK 166732 04-03
KULL-PADOVANI G 151264 04-09
KUNTZMAN R 157146 04-04, 158774 04-03
KUPFER DJ 152122 04-13
KUPFERBERG HJ 164809 04-03
KURIYAMA K 158511 04-03
KURLAND A 162155 04-12
KURLAND AA 156939 04-08, 160221 04-11, 161385 04-11, 165371 04-11
KURLAND KZ 159473 04-07
KVAN L 151691 04-11
KYTOMAKI O 151693 04-13

L

LACHANCE R 150832 04-08
LACHENMAYER L 163697 04-03
LADER MH 151162 04-10
LADINSKY H 160475 04-03
LAI A 163189 04-12
LAI CM 150417 04-01
LAKE CR 166364 04-11
LAKE N 158773 04-03
LAL H 153098 04-03, 161343 04-04
LAMBERT DMD 158356 04-17
LAMBORN KR 159776 04-09
LAMENT R 155055 04-08
LAMPRECHT F 154261 04-03
LANCE JW 151201 04-11
LANDAUER AA 155841 04-14
LANDE S 162738 04-03
LANDO LI 151803 04-13
LANDSBERG L 166022 04-05
LANGELIER P 150219 04-11, 163767 04-03
LAPIERRE YD 160642 04-13
LAPIN IP 155222 04-03
LARA PP 155254 04-13, 155257 04-09, 157343 04-14, 157344 04-13
LAROCHELLE L 150219 04-11
LASAGNA L 150829 04-17, 166721 04-08, 166722 04-13
LASSEN JB 150354 04-04
LATHAM CJ 156804 04-03
LAVENDER S 152032 04-15
LAVERTY R 160471 04-03
LAVIN NI 156741 04-08
LAVY S 156778 04-11
LAWRENCE RS 157067 04-04
LAWRENCE WH 162138 04-06
LAWSON J 160975 04-14
LCANDER K 158770 04-16
LE BLANC AE 166165 04-04
LEACH GDH 158769 04-03
LEAF RC 157136 04-04
LEANDER K 156801 04-03
LEBLANC AE 153107 04-04, 157039 04-04
LECH-SOBCZAK A 150749 04-11
LECHAT P 158474 04-05
LEE HK 150834 04-07
LEE JH 155055 04-08, 166718 04-08
LEE JK 166717 04-13
LEE MA 165729 04-06
LEELING JL 163793 04-03
LEHMANN HE 153794 04-10, 160643 04-11
LEIGHTY EG 160198 04-03
LELORD G 150646 04-15
LEMBERGER L 166720 04-14
LENNARD HL 150614 04-17, 158625 04-17
LEONARD BE 163749 04-03
LEONARD RB 165803 04-08
LEONOVA YI 156588 04-11
LESHEM MB 156804 04-03
LEUNG L 156250 04-11
LEVER JD 156814 04-03
LEVINE J 155277 04-17
LEVINE M 159775 04-07
LEVINE RR 164233 04-17
LEVY HB 157362 04-11
LEWANDER T 158775 04-03
LEWICKA-WYSOCKA H 167087 04-15
LEWIS DM 156741 04-08
LEWIS MI 151512 04-11
LEWIS PJE 161661 04-11
LEWIS SA 165642 04-14
LIDBRINK P 155903 04-03, 160472 04-03
LIEBERMAN AN 156739 04-07
LIN C 159827 04-03
LINDEKE B 156906 04-06, 163188 04-03
LINDELL TJ 157154 04-04
LINDEN KJ 155265 04-17
LINDGREN J 158770 04-16
LINDQVIST M 150402 04-03
LING GM 155494 04-03, 156807 04-03
LINGJAERDE O 160473 04-13
LINGL FA 163337 04-10
LINN LS 158645 04-17
LIPINSKI JF 158176 04-15
LIPSEDGE MS 163751 04-10
LIPTON MA 155253 04-03, 157343 04-14, 157344 04-13, 163022 04-13
LISKOW B 152715 04-14
LISOWSKA J 150748 04-09

LISTON EH 159775 04-07
LITTERST CL 156764 04-05
LOCHS H 150323 04-13
LOCKE S 163764 04-03
LOCKET S 155753 04-15, 159588 04-15
LOH HH 151907 04-03, 156822 04-03, 157038 04-03, 166697 04-03
LONG JP 157068 04-03
LONGO VG 158004 04-04
LONGONI A 158282 04-04
LOONEY TA 151228 04-04
LOPEZ-IBOR ALINO JJ 151394 04-10, 151395 04-11
LOPEZ-IBOR ALINO JM 151395 04-11
LORD DJ 150790 04-10
LORENZO-FERNANDEZ P 165411 04-03
LORENZO-VELAZQUEZ B 165412 04-03
LOUGHHEAD MG 159585 04-05
LOVELL RA 160646 04-03, 160647 04-03
LOWDEN JA 162949 04-03
LU T 162959 04-04
LUCCIONI H 157234 04-09
LUCID SW 156879 04-03
LUKANINA SK 153278 04-10
LUKAS ER 152030 04-11
LUKAS G 151906 04-03
LUKASZEWICZ A 150747 04-11
LUKOMSKIY II 151809 04-11
LUMBRERAS N 162057 04-03
LUND MH 166735 04-15
LUTTGES MW 150312 04-04
LYONS J 157072 04-04, 157084 04-04

M

MAAS JN 163161 04-04
MACFARLANE MD 160951 04-11, 166388 04-03
MACINNES JW 159567 04-03
MACLEAN AW 155436 04-13
MACMILLAN V 160226 04-03
MADSEN JA 152131 04-13
MAGARO PA 154170 04-08
MAGGIO A 158774 04-03
MAGGIO AC 157146 04-04
MAGGIORA L 151435 04-03, 162975 04-03
MAIRA G 158291 04-13
MAJ J 156752 04-04, 160769 04-03, 166695 04-03
MAKHANI M 156763 04-06
MALEK-AHMADI P 163994 04-09
MALETZKY BM 150689 04-09, 162363 04-09
MALICK JB 155243 04-04
MALITZ S 155866 04-11
MALM U 166978 04-15
MALSEED RT 162047 04-03
MAN DP 166001 04-04
MAN PL 155797 04-09
MANDEL IJ 166067 04-04
MANDELL AJ 155245 04-04, 155260 04-03
MANDELLI V 158282 04-04
MANNISTO PT 151908 04-03
MANTEGAZZA P 163775 04-03
MAO TSS 161389 04-05
MARASA J 164219 04-10
MARCH J 156134 04-09
MARCJAN K 156567 04-08
MARCUCCI F 160466 04-03, 166691 04-03
MARCUSSON J 166985 04-10
MARDER JE 157291 04-17
MARDEROSIAN AD 150425 04-11
MARDONES J 150650 04-01
MARGOLIS RA 150434 04-08
MARGOLIS S 158003 04-04
MARGULES DL 150380 04-04
MARICHICH ES 161963 04-03
MARINO A 158301 04-14, 159397 04-06
MARJERRISON G 163782 04-13
MARKIEWICZ K 156551 04-15
MARKS DF 149649 04-14
MARRAZZI AS 152722 04-13
MARRIOTT RG 150388 04-04
MARS H 150216 04-13
MARSHALL FD 160772 04-03
MARSHALL GR 162890 04-03
MARSHMAN JA 157039 04-04
MARTIN J 161279 04-11
MARTIN JC 153105 04-04
MARTIN WE 164443 04-13
MARTIN WR 150318 04-03, 151656 04-03, 152542 04-17
MARTINEZ G 152137 04-15
MARTINEZ-SIERRA R 165412 04-03
MARTZ BL 167109 04-17
MARTZ R 150404 04-15, 166720 04-14
MARUYAMA Y 157116 04-03
MASKIN MB 159895 04-14
MASON CR 152437 04-03
MASON WD 150417 04-01
MASSARELLI R 163763 04-03
MASSARI F 165371 04-11
MASUR J 157181 04-04
MATSUMOTO K 161558 04-13
MATSUMOTO M 150581 04-03
MATSUMOTO S 158483 04-03
MATSUNAGA B 165728 04-08
MATSUZAKI M 158290 04-03
MATSUZAWA T 155553 04-01
MATTHEWS PBC 162892 04-03
MATTHEWS WB 161265 04-07
MATTILA MJ 160201 04-04
MATTSSON B 166985 04-10
MATUSZEWICZ T 156569 04-15
MAUDLIN RK 165745 04-15
MAURER AS 152031 04-11
MAXION H 152111 04-11
MAYFIELD DG 150327 04-17
MAZAYEVA NA 153278 04-10
MAZZULL 0 JM 166722 04-13
MCCABE OL 162155 04-12
MCCARTHY DA 158321 04-04, 162046 04-03
MCCLURE DJ 153606 04-10
MCCORMICK WO 153607 04-10
MCFARLAIN RA 153104 04-04
MCGLASHAN T 155277 04-17
MCGRATH GJ 162892 04-03
MCINTYRE KE 157153 04-14
MCISAAC WM 162959 04-04
MCKEARNEY JW 157156 04-04
MCKENZIE GM 155246 04-03, 160545 04-03, 166364 04-11
MCKIM WA 160910 04-04
MCKINNEY WT 164715 04-04
MCLAUGHLIN B 163332 04-08
MCLAUGHLIN JL 150298 04-04, 150411 04-01, 150412 04-01, 156875 04-01
MCLEAN JR 162046 04-03
MCMILLAN DE 150322 04-04, 162325 04-04
MEDON PJ 163793 04-03
MEEK JL 151657 04-03
MEGLIO M 158291 04-13
MEHLMAN MA 162391 04-03
MEHTA D 152867 04-11, 152868 04-11
MELDRUM BS 152044 04-03
MELLERUP ET 161390 04-03
MELSEN S 151689 04-07
MELTZER HY 150669 04-15
MENDELS J 150314 04-13, 161391 04-14, 161731 04-03, 161732 04-13, 164720 04-09
MENEGATI E 149746 04-10
MENON MK 156819 04-03
MERDEYEV AR 151805 04-11
MERKER JW 150422 04-04
MERLIS S 153796 04-17, 155274 04-17
MERLO AB 157155 04-03
MERRICK EM 160644 04-11
MESSIHA FS 151632 04-01, 160802 04-13
MEUCCI M 150836 04-13
MEYER JA 159473 04-07
MEYER JS 162136 04-03
MEYERHOFF JL 153097 04-11
MIETLOWSKI W 166722 04-13
MIKA ES 163189 04-12
MIKKELSEN B 151694 04-11
MILLER H 164621 04-17
MILLER LL 154814 04-04, 157182 04-04
MILLS AW 157045 04-04
MILNER G 155841 04-14
MILSTEIN V 162362 04-14
MINDHAM RHS 153122 04-15, 162636 04-09
MINEO K 158488 04-04
MINSKER EI 153278 04-10
MITFORD J 156835 04-07
MIWA GT 163188 04-03
MIYAGAWA H 158513 04-03
MIYAMOTO T 154979 04-09
MIYATA S 150581 04-03
MIZNE J 157154 04-04
MODIGH K 150296 04-04
MOHR JA 159345 04-14
MOHRMAN ME 156812 04-01
MOLLOY BB 155493 04-03, 163804 04-03
MONACHON M 158293 04-03
MONDOVI B 166700 04-03
MONROE RR 159398 04-11
MONTEVECCHI MT 149746 04-10
MONTI JM 163773 04-14
MORAES R 152209 04-09
MORETZ FH 162325 04-04
MORGAN AJ 155058 04-17
MORGAN HG 151049 04-15
MORGAN JP 166722 04-13
MORGAN RTT 158012 04-13
MORGANE PJ 152428 04-04, 157497 04-03
MORIN RD 162292 04-03
MORMONT C 160315 04-14, 161159 04-17
MORRIS M 165621 04-08
MORRISON D 150327 04-17
MORRISON SD 156156 04-15, 162364 04-14
MORSELLI PL 160478 04-03
MOTTIN JL 154690 04-11
MOTTONEN M 163632 04-05
MOTTRAM DR 156814 04-03
MOYER KE 161125 04-04
MOZHANOVA RV 151805 04-11
MOZIAS MR 151807 04-11
MUDHOLKAR GS 166722 04-13
MUNDEN KJ 150347 04-08
MUNNO N 150413 04-06
MUNSON ES 163313 04-03
MUNTZING J 158001 04-04
MURAKAMI U 160038 04-05, 165730 04-05
MURAYAMA S 158509 04-03
MURPHY HBM 155267 04-17
MUSCETTOLA GB 160478 04-03
MUSK AW 156754 04-15
MUSSINI E 160462 04-17, 160466 04-03, 166691 04-03
MUUS P 166983 04-17
MYERS RD 162056 04-03
MYLECHARANE EJ 161141 04-03
MYTILNEOU C 157178 04-03

N

NAGASE T 158505 04-03
NAGATO H 157035 04-17
NAGAWA T 158504 04-04
NAHORSKI SR 152087 04-03, 161379 04-03
NAIR N 160643 04-11
NAITO K 158511 04-03
NAKAGAWA K 158511 04-03
NAKAGAWA T 157035 04-17
NAKAI Y 158505 04-03
NAKAMURA J 160633 04-03
NAKAMURA K 157146 04-04, 158774 04-03
NAKANO KK 156075 04-14
NAKANO M 158514 04-03
NAKASHIMA Y 158330 04-13
NAKAYA K 158330 04-13
NAKAYAMA I 158491 04-04
NAMYSLOWSKA I 150745 04-08
NAPIER L 163751 04-10
NARANJO C 167041 04-01
NASELLO AG 157145 04-04, 161963 04-03, 167043 04-03
NASH P 153103 04-03
NASSI G 151305 04-07
NATHAN PE 163647 04-11
NAYLOR RJ 156824 04-03
NEAL JM 150412 04-01
NEAL WL 150347 04-08
NEEDLEMAN P 162890 04-03
NEELEY AE 157067 04-04
NEELY AE 155221 04-03
NEFF L 149916 04-15
NEFF NH 160457 04-03
NEILL LT 162170 04-11
NELSON W 156809 04-04
NESBITTE J 156739 04-07
NETO JP 163778 04-04
NEUFELDT AH 163782 04-13
NEUMANN H 151014 04-11
NEVILLE DM 156869 04-03
NG LK 153202 04-03
NG LKY 154261 04-03, 158154 04-13
NICHOLS DE 157068 04-03

NIELSEN RC 162391 04-03
NIEMEGEERS CJE 150300 04-04, 163758 04-04
NIEMINEN L 163632 04-05
NIES A 159776 04-09
NIKULCHEVA NG 161964 04-03
NILAKANTAN B 150668 04-03
NILSSON I 156801 04-03, 158770 04-16
NILSSON IM 156799 04-03
NILSSON JLG 156799 04-03, 156801 04-03
NISHIZONO M 165728 04-08
NOBIN A 163697 04-03
NOBLE EP 160477 04-14
NOEL GL 156772 04-13
NOFFSINGER JK 163637 04-05
NOLAN NA 153102 04-04
NORTON S 160583 04-04
NORTON TR 157300 04-17
NOSE T 158501 04-03
NOUSIAINEN R 151693 04-13
NOVAL JJ 161389 04-05
NUGENT A 161581 04-14
NUNEZ L 150650 04-01
NUROWSKA K 156563 04-08, 156565 04-09
NYBACK H 166975 04-08

O

O'BOYLE M 151228 04-04
O'BRIEN RA 150316 04-03
O'SULLIVAN JP 152036 04-15
OAKLEY GP 156069 04-15
OATES JA 167107 04-14
OBRIST P 153217 04-04
OBRIST PA 153171 04-03
OCZKOWSKI Z 151380 04-11
ODA CS 157300 04-17
OEHME FW 166737 04-05
OFFICER JE 166387 04-03
OGAWA E 158516 04-03
OGAWA H 165647 04-04
OGAWA M 158274 04-03
OGAWA N 154994 04-05, 158492 04-04, 158494 04-04
OGLESBY MW 163753 04-04
OGUNBONA FA 151634 04-03, 165998 04-06
OGUNREMI OO 155436 04-13
OGURA C 150397 04-03, 154980 04-09, 155071 04-09
OHATA K 158507 04-03
OHMOTO T 149651 04-03
OHTAKE S 158508 04-04
OKA T 158484 04-03
OKAMOTO H 163019 04-05
OKINAGA CM 157300 04-17
OKUMA T 154980 04-09
OKUN R 164218 04-15
OLDENDORF WH 155906 04-03
OLDS ME 156810 04-04
OLESEN OV 163320 04-03
OLIVERIO A 150350 04-04, 157099 04-04
OLSEN JL 156763 04-06
OLSON JW 163696 04-04
OLSON L 160472 04-03
ONO N 166908 04-09
OOKUMA T 155071 04-09
OOMOTO T 161558 04-13
OPICE B 149744 04-11
OPPENHEIM G 163202 04-15
ORDYANSKAYA AB 151811 04-11
ORME M 158303 04-14
ORSINGHER OA 158772 04-04
ORZACK MH 150665 04-08, 153096 04-08
OSMOND H 150951 04-08
OSWALD I 155436 04-13, 163746 04-14, 165642 04-14
OTA K 165371 04-11
OTA KY 156939 04-08
OTSUKI S 158330 04-13, 158500 04-09
OTTOSSON J 166985 04-10
OVERALL JE 156740 04-11, 162170 04-11
OVERO KF 166982 04-13, 166984 04-03
OVERSTREET DH 163535 04-03
OVERTON DA 153101 04-13
OZAWA H 158475 04-03

P

PAAL G 156891 04-11
PAALZOW L 167018 04-03
PACIELLO MA 150623 04-17
PAGNIN A 150833 04-13, 167232 04-13
PAKKENBERG H 150668 04-03, 151689 04-07
PALMER DS 160202 04-03
PALMER EC 152664 04-03
PALMER GC 154372 04-03, 165682 04-03, 165790 04-03
PANASYUK LV 162922 04-03
PANDEY GN 164720 04-09
PANKSEPP J 150353 04-03, 152428 04-04
PANTELEJEWA EA 156555 04-10
PAPAVASILIOU PS 162138 04-06
PAPPAS BA 160854 04-04
PARAMAESVARAN N 155437 04-17
PARE CMB 162382 04-17
PARE WP 153569 04-04
PARENT A 150219 04-11
PARK S 150834 04-07, 155259 04-03
PARKER HE 150579 04-15
PARKES MW 153102 04-04
PARLI CJ 155493 04-03
PAROLI E 149749 04-14
PARWATIKAR S 154336 04-13
PASCU I 162136 04-03
PASCUAL A 166693 04-03
PASSOUANT P 160649 04-03
PATIL PN 157302 04-01, 161142 04-03
PATTON RA 159366 04-04
PAUL H 151155 04-13
PAWLOWSKI L 160769 04-03
PAXTON PWS 159130 04-14
PEACHEY JE 153026 04-06
PEARCE J 163751 04-10
PEARL JH 163755 04-14
PEARSON E 150835 04-08
PEKKARINEN A 151693 04-13, 151695 04-15
PENAUD J 161278 04-11
PENG CHL 156638 04-03
PENROD WC 159175 04-17
PEOPLES SA 166790 04-13
PEPIN B 150220 04-11
PERCY-ROBB IW 155436 04-13
PEREDA T 165995 04-03
PEREL JM 156157 04-15
PEREZ-REYES M 163022 04-13
PERI G 160475 04-03
PERON-MAGNAN P 155272 04-17
PERRIS C 166985 04-10
PERRON D 153614 04-11
PERRY TL 160826 04-13
PERSINOS GJ 163189 04-12
PERSSON G 166985 04-10
PERT A 157341 04-04
PERT CB 150381 04-03
PESKAR B 159370 04-06
PESSOTTI I 158282 04-04
PETERS R 162673 04-02
PETTY F 162276 04-04
PFEIFFER CC 150964 04-08
PHARES CK 162391 04-03
PHILIPPART M 159775 04-07
PHILLIPS BM 150410 04-01, 163793 04-03
PHILLIS JW 158773 04-03
PICCHIONI AL 159565 04-03, 163803 04-03, 166001 04-04
PICHOT P 161281 04-14
PICKENS R 155410 04-04, 163766 04-04
PIECHOCKI T 150406 04-04
PIEPER WA 162274 04-04
PIERI L 160474 04-03
PIETRUSZEWSKA I 156567 04-08
PIKE DJ 163751 04-10
PINELLI P 158296 04-11
PINO ME 165995 04-03
PIRES A 150832 04-08, 153614 04-11
PLACIDI GF 160478 04-03
PLENGE P 161390 04-03
PLESCIA OJ 161389 04-05
PLETSCHER A 156797 04-03, 160474 04-03
PLOTKIN D 164218 04-15
PLOTKIN DA 164218 04-15
PLOTNIKOFF NP 155252 04-03
POGORZELSKI W 156564 04-08
POIRIER L 150219 04-11
POIRIER LJ 163767 04-03
POKORNY AD 156740 04-11
POLIZOS P 150434 04-08
POLK A 166717 04-13
POLVAN N 164219 04-10
PONG SF 159569 04-03
POOL WR 156823 04-06
POST F 150845 04-09, 162639 04-09
POST RM 164871 04-11
POTOCZAK D 162046 04-03
POUSTKA F 163633 04-03
POWELL DA 157148 04-04, 161718 04-04
POWELL WS 161140 04-01
PRADA JA 150317 04-04
PRANGE AJ 155252 04-03, 155253 04-03, 155254 04-13, 155257 04-09, 155259 04-03, 157343 04-14, 157344 04-13, 167262 04-11
PRESLEY R 156814 04-03
PRESTHUS J 151691 04-11, 151696 04-11
PRIEN RF 159778 04-09
PRINCE WT 162336 04-03
PROAKIS AG 159828 04-03
PRUTTING J 156012 04-07
PUNELL G 158771 04-03

Q

QUITKIN F 153271 04-15
QUITKIN FM 150438 04-09

R

RADO JP 162719 04-13
RAFAELSEN L 163777 04-14
RAFAELSEN OJ 161390 04-03, 163777 04-14
RAFTOS J 160939 04-05
RAJAN KS 166902 04-03
RAJPUT AH 162361 04-15
RAKE AV 162272 04-03
RALSTIN M 162156 04-12
RANDALL CL 157125 04-04
RANDALL LO 160462 04-17, 160464 04-05
RANDALL W 166157 04-03
RANDRUP A 150667 04-04
RANSOM DC 158625 04-17
RAO DB 152875 04-14
RAPER C 161141 04-03
RAPPOLT RT 155205 04-15
RASTEGAR A 160965 04-15
RAVAL RP 151632 04-01
RAVARIS CL 159776 04-09
RAYEVSKIY KS 162922 04-03
RAZZAK A 158494 04-04
READ GW 157300 04-17
RECH RH 166530 04-03
REDDY C 153098 04-03
REDMONDED 163161 04-04
REES L 153608 04-10
REGINALDI D 161387 04-09
REICH MJ 162673 04-02
REICHLIN S 150424 04-03
REICHOWA J 156568 04-15
REID JL 150827 04-15, 152142 04-03
REINA G 150836 04-13
REINHOLD K 157141 04-03
REITANO M 150631 04-15
RENNICK P 163755 04-14
RENZI P 150350 04-04
RESURRECCION EC 156739 04-07
REVUELTA A 152199 04-03, 152549 04-03, 157000 04-03
REWERSKI W 150406 04-04
REYNOLDS AP 160767 04-03
RIBADEAU DUMAS J 150221 04-11
RICCIO DC 157125 04-04
RICH M 163751 04-10
RICHARDS RK 163635 04-05
RICHARDS WA 160221 04-11, 161385 04-11
RICHENS A 166582 04-17
RICKELS K 158286 04-14, 160218 04-17
RICKLES WH 157153 04-14
RIEDER J 160467 04-13
RIEDER RO 156155 04-11
RIEGE WH 157036 04-04
RIFFEE WH 156821 04-03
RIFKIN A 150438 04-09, 153271 04-15
RIJNTJES NVM 160468 04-03
RILEY HD 152066 04-11
RILEY TN 156874 04-01, 164855 04-01
RIMMER L 153122 04-15
RINN UK 160650 04-13
RINNE UK 150218 04-13, 151685 04-11, 151693 04-13, 151695 04-15
RISNER ME 150321 04-06, 157147 04-04

RITCHIE JM 150383 04-03
RITZMANN RF 163132 04-04
RIVERA-CALIMLIM L 166721 04-08
RIZZO M 160478 04-03
ROBBINS J 156771 04-13
ROBBINS TW 163737 04-03
ROBERGE A 150219 04-11
ROBERGE AG 157144 04-04, 163767 04-03
ROBERTS J 166789 04-03
ROBERTS MHT 156758 04-03, 158768 04-03
ROBICHAUD RC 150301 04-04, 161962 04-04, 167040 04-04
ROBINSON DS 158302 04-13, 159776 04-09
ROBISON GA 154372 04-03, 165682 04-03
RODDA B 150404 04-15
RODDA BE 166720 04-14
RODNICK EH 162169 04-08
ROFFLER-TARLOV S 166027 04-03
ROFFMAN M 153098 04-03
ROGERS DJ 151591 04-04
ROGERS KJ 158002 04-03, 161379 04-03
ROGGEVEEN AE 149650 04-03
ROGIEWICZ A 156564 04-08
ROHTE O 158001 04-04
RONDINA RVD 150416 04-01
RONDOT P 150221 04-11
ROSEN AJ 156808 04-04
ROSEN B 164714 04-08
ROSENBAUM MG 163216 04-11
ROSENBERG J 163753 04-04
ROSENBERG L 156849 04-09
ROSENBLATT S 155366 04-09
ROSENGREN E 163697 04-03
ROSENKRANTZ H 156321 04-03
ROSSER PL 150550 04-11
ROSSI GF 158291 04-13
ROSSI RR 157094 04-03
ROSZKOWSKI AP 163635 04-05
ROTENBERG D 161596 04-14
ROTH RH 157111 04-03, 162974 04-03
ROTHSCHILD GH 154739 04-14
ROTROSEN J 156811 04-02
ROWE IL 150791 04-17, 153264 04-17
ROWLEY VN 157043 04-04
ROYER M 157233 04-09
RUDZIK AD 158279 04-03
RUEGAMER WR 162391 04-03
RUGGIERI S 150631 04-15
RUSHTON R 158283 04-14
RUSHWORTH G 161265 04-07
RUSSI GD 163534 04-03
RUST J 150672 04-07
RUZHANSKIY MI 151807 04-11
RYBAKOWSKI J 150746 04-09, 167085 04-03
RYZHENKOV VE 161964 04-03

S

SAARI M 160854 04-04
SAARMA J 152152 04-09
SAARMA M 152152 04-09
SAARNIVAARA L 151908 04-03
SAAVEDRA JM 157109 04-03, 161892 04-17
SACHS C 151350 04-03
SAFER DJ 151592 04-15
SAITO H 158490 04-04
SAITO S 158493 04-04
SAKAGUCHI N 165728 04-08
SAKER BM 156754 04-15
SAKURAI T 165728 04-08
SAKURAI Y 150399 04-03
SALETU B 150349 04-13, 164219 04-10, 166733 04-08
SALETU M 150349 04-13
SALKIND MR 153609 04-10
SALOKANGAS R 151695 04-15
SAMSONOVA ML 155222 04-03
SANCHEZ E 150650 04-01
SANDBERG F 158770 04-16
SANDERS GTB 150584 04-03
SANDOVAL RG 157037 04-15
SANGHVI I 163695 04-03
SANO M 158495 04-04, 158496 04-04
SANSONE M 150350 04-04
SAPER CB 150320 04-04
SARAN BM 155207 04-09
SARANTAKIS D 156872 04-01
SARGENT T 167041 04-01
SARMA PSB 160694 04-14
SARTORETTO JN 152209 04-09
SARTORY G 150672 04-07
SATHANANTHAN G 150834 04-07, 163754 04-08, 166068 04-14
SATIJA DC 156359 04-07
SATO M 158495 04-04, 158496 04-04
SATO PT 150412 04-01
SATO T 158495 04-04, 158496 04-04
SAU K 160653 04-13
SAVACOOL AM 166717 04-13
SAVAGE C 162155 04-12
SAXENA PN 157139 04-03
SCALES SM 150550 04-11
SCAPICCHIO PL 150623 04-17
SCHABORT JC 152165 04-03
SCHAFER I 152066 04-11
SCHARDING NN 166737 04-05
SCHARF MB 158299 04-14
SCHECHTER MD 163771 04-04
SCHERINI A 150833 04-13
SCHIELE BC 159348 04-15, 166729 04-09
SCHILDKRAUT JJ 166027 04-03
SCHMIDT DM 166716 04-13
SCHMIDT EC 159822 04-03
SCHMIDT MJ 154372 04-03
SCHMITT PP 160644 04-11
SCHNEIDER E 152111 04-11
SCHNEIDERMAN B 152438 04-05
SCHNELLE K 150409 04-03
SCHOU M 155041 04-15, 155042 04-15, 155043 04-15, 162380 04-09
SCHRAMMOWA H 167085 04-03
SCHULTES RE 158626 04-17
SCHULZ R 157318 04-03, 166690 04-03
SCHUSTER CR 155411 04-04, 157998 04-04
SCHUT T 166726 04-13
SCHWARTZ FCM 152036 04-15
SCHWARTZ MA 160465 04-13
SCHWEITZER-BUCHER E 157233 04-09
SCHWIRIAN PM 156153 04-15
SCOTTO J 157234 04-09
SECUNDA SK 150314 04-13, 161731 04-03
SEDVALL G 166975 04-08
SEELER RA 161788 04-15
SEGAL AM 151814 04-03
SEGAL DS 162277 04-04
SEGAL M 151435 04-03, 162975 04-03, 164836 04-03
SEGAL RL 155366 04-09
SEGELMAN AB 150419 04-01
SEGUIN S 166692 04-04
SEKERKE HJ 166716 04-13
SELBY G 150789 04-14
SELENATI A 158297 04-17
SENECA H 152870 04-03
SEPINWALL J 158005 04-04
SERAFETINIDES EA 162365 04-08
SERDARU M 161281 04-14
SERVADIO E 156920 04-10
SERVIT Z 151011 04-11
SETYONEGORO RK 151947 04-07, 152342 04-10
SHADER RI 163221 04-17, 165463 04-15
SHAFFER R 165564 04-08
SHAGASS C 153101 04-13
SHAH KR 157067 04-04
SHAH NS 155221 04-03, 157067 04-04
SHANLEY J 156134 04-09
SHAPIRO J 165189 04-17
SHAPIRO T 150432 04-08, 152208 04-08
SHARMA GN 156359 04-07
SHARMA RP 166788 04-05
SHARPE LG 162890 04-03
SHARPLEY P 162362 04-14
SHAW DM 162380 04-09
SHENKMAN L 155255 04-13
SHENOY EVB 163800 04-13
SHEPHERD M 162636 04-09
SHEPPARD C 153796 04-17
SHEPPARD CW 151309 04-04
SHERWIN I 161331 04-11
SHEYKHON FD 162921 04-03
SHIGEHISA T 158486 04-04, 158487 04-03
SHIH JC 158570 04-03
SHIKIMI T 150581 04-03
SHIMADA S 158506 04-03
SHIMIZU H 158512 04-03
SHIMIZU S 158489 04-04
SHIMOYAMA N 154980 04-09
SHINFUKU N 166934 04-09
SHIRAISHI H 150398 04-05, 152027 04-05, 152028 04-05
SHIRRON C 156766 04-03
SHIZGAL P 153571 04-03
SHOPSIN B 150835 04-08, 155255 04-13
SHULGIN AT 161146 04-01, 167041 04-01
SICUTERI F 150670 04-15
SIEGEL RK 165729 04-06
SIESJO BK 160226 04-03
SIGGINS GR 156107 04-03
SIIRTOLA T 151693 04-13, 151695 04-15, 160650 04-13
SILBERGELD EK 166785 04-05
SILVA G 150776 04-10
SILVER R 162667 04-03
SILVERSTONE JT 153609 04-10
SIMEON J 155276 04-17
SIMIC B 152085 04-15
SIMON EJ 164858 04-03
SIMON P 163760 04-04
SIMPSON G 159348 04-15
SIMPSON GM 152210 04-07, 152911 04-16, 155055 04-08, 155256 04-15, 166718 04-08
SIMS K 151435 04-03, 162975 04-03
SINCLAIR JG 163801 04-03
SINGER G 163772 04-03
SINGER I 161596 04-14
SINGH C 155437 04-17
SINGH MM 150351 04-08, 160219 04-17, 162869 04-08
SIZARET P 161278 04-11
SJOQVIST F 160469 04-13
SLETTEN IW 152867 04-11, 152868 04-11, 152899 04-17, 161818 04-14
SLOAN JW 151656 04-03
SLOTKIN TA 150580 04-03
SLUYTS R 156817 04-13
SMALL E 151048 04-15
SMALL IF 162362 04-14
SMALL JG 162362 04-14
SMISSMAN E 151435 04-03, 162975 04-03
SMITH AA 159654 04-03
SMITH CB 163769 04-04
SMITH DB 161581 04-14
SMITH DF 150324 04-04, 160220 04-03
SMITH DJ 166696 04-03
SMITH GA 150151 04-04
SMITH HB 150324 04-04
SMITH JA 155905 04-13, 165999 04-03
SMITH JM 150351 04-08, 162869 04-08
SMITH M 155887 04-10
SMITH RD 157117 04-03
SMITH RM 166736 04-05
SMITH SG 151630 04-04, 152213 04-04
SMULEVITCH AB 153278 04-10
SMYTH RD 166717 04-13
SMYTH WF 155902 04-16
SMYTHE H 158300 04-14
SMYTHIES JR 162292 04-03
SNIBBE J 164217 04-08
SNODDY HD 163804 04-03
SNODGRASS SR 161380 04-06
SNYDER DR 155341 04-05
SNYDER RD 152137 04-15
SNYDER SH 150381 04-03, 153097 04-11
SOBLE AG 157065 04-03
SOFIA RD 150302 04-04, 157142 04-03, 162055 04-02
SOKOLOSKI T 157302 04-01
SOLLERTINSKAYA TN 152101 04-03
SOLLIDAY NH 150620 04-13
SOLYOM L 153606 04-10
SONNEINEN V 160650 04-13
SONNINEN V 150218 04-13, 151693 04-13, 151695 04-15
SORRELL MF 163637 04-05
SOSKIN RA 160221 04-11
SOUBRIE P 163760 04-04
SOWINSKA H 156752 04-04, 166695 04-03
SPECTOR M 156642 04-13
SPECTOR S 159370 04-06
SPEISER Z 157040 04-04
SPERANSKAYA NP 162920 04-04
SPIEGEL HE 156823 04-06
SPOHN HE 159043 04-06
SPOLADORI S 151263 04-07
SPRAGUE RA 156321 04-03
SPRAGUE RL 153629 04-17, 161049 04-14
SPRATT JL 160200 04-03

SQUIRE LR 150151 04-04
SROUFE LA 158175 04-14
STANCER HC 150796 04-14, 153026 04-06
STARR N 150423 04-04
STEEL CA 163680 04-08
STEELE RA 162273 04-03
STEENSTRUP OR 155042 04-15
STEIN J 160215 04-14
STEIN L 158280 04-04
STEINBERG H 158283 04-14
STEINBOOK R 152211 04-09
STEINBOOK RM 158972 04-09
STEINER SS 157083 04-04
STEINERT HR 163757 04-03
STEINSULTZ G 157072 04-04
STEPHANT J 150646 04-15
STEPHENS JH 159395 04-09
STERN L 152066 04-11
STERN P 161143 04-03
STERN WC 152428 04-04, 157497 04-03
STERNBACH LH 160463 04-01
STEVENSON D 156872 04-01
STEWART MA 158175 04-14
STEYN M 152165 04-03
STIKELEATHER RA 157343 04-14
STITZEL RE 160639 04-03
STOCK G 156765 04-03
STOFF DM 166067 04-04
STOICA E 162136 04-03
STOKELY SN 157083 04-04
STOKES GS 160939 04-05
STOKES JW 150314 04-13
STOLERMAN IP 157151 04-03
STOLK JM 156322 04-03
STOLLEY PD 163002 04-17
STOLZOFF GE 160477 04-14
STONE TW 160768 04-03, 162438 04-03
STRAUMANIS JJ 153101 04-13
STRAW RN 158279 04-03
STRETCH R 154210 04-04
STRINDBERG B 160469 04-13
STROM R 166700 04-03
STROMBERG U 156757 04-04
STROMBOM U 150664 04-03
STRZYZEWSKI W 150744 04-09, 150748 04-09
STUART J 152036 04-15
STUTZ RM 166787 04-04
SUDILOVSKY A 166064 04-03
SUGERMAN AA 150437 04-09
SUH HK 156772 04-13
SULLIVAN JW 158005 04-04
SULSER F 157118 04-03, 165682 04-03
SUNDWALL A 160469 04-13
SUOMI SJ 164715 04-04
SUTTER J 157234 04-09
SUWA N 155278 04-17
SUZUKI S 158515 04-05, 158516 04-03
SUZUKI Y 158515 04-05
SVENSSON TH 150664 04-03
SWANSON LW 162890 04-03
SWEENEY DC 150320 04-04
SWERDLOW M 162311 04-11
SYME GJ 150356 04-04, 163752 04-04
SYME LA 150356 04-04, 163752 04-04
SZABADI E 156758 04-03, 158768 04-03, 162439 04-03
SZARA S 155240 04-17

T

TABER CA 154959 04-03
TABER RI 155243 04-04
TADANO T 158498 04-04
TADDEI M 151264 04-09
TADOKORO S 165647 04-04
TAGNEY J 165642 04-14
TAGUCHI K 158330 04-13
TAIRA M 152436 04-05
TAKAGI H 158482 04-03, 158491 04-04, 158501 04-03, 158507 04-03
TAKAGI K 158490 04-04
TAKAHASHI R 150399 04-03
TAKAORI S 158505 04-03
TAKE Y 158504 04-04
TAKEMORI AE 157116 04-03
TAKENOSHITA M 158512 04-03
TAKESHITA H 154980 04-09
TAKEUCHI H 152436 04-05
TAMPIER L 150650 04-01
TAN BK 155526 04-13
TANABE K 158497 04-03
TANAKA C 158506 04-03
TANAKA S 158512 04-03
TANG AH 158279 04-03
TANG S 160653 04-13
TANG WEI TY 156867 04-06
TANIGUCHI K 158493 04-04
TANNHAUSER M 167043 04-03
TAUBIN HL 166022 04-05
TAYLOR KM 160471 04-03
TAYLOR M 163759 04-04, 163774 04-04
TAYLOR MA 162172 04-09, 164719 04-09
TAYLOR WA 157118 04-03
TEMPLE R 156771 04-13
TENGERDY CE 163029 04-03
TERPSTRA C 150579 04-15
TESEI R 150623 04-17
TETREAULT L 160642 04-13
THALE T 164429 04-17
THIEBOT MH 163760 04-04
THOA NB 152432 04-04
THOMPSON EN 152036 04-15
THOMPSON JR 154613 04-03
THOMPSON T 162530 04-04
THORESEN GB 151691 04-11
THORNTON BP 163159 04-05
THORNTON WE 163159 04-05
THUT PD 157154 04-04
TIMMONS MC 163022 04-13
TIN-WA M 163189 04-12
TINKLENBERG JR 153106 04-13, 153108 04-14
TITUS RJ 156527 04-15
TJANDRA J 151947 04-07, 152342 04-10
TOBE M 158515 04-05
TOGNONI G 156759 04-03
TOLOSA E 161673 04-13
TOLWINSKI T 150747 04-11, 156552 04-11
TOMINAGA T 165728 04-08
TOMKIEWICZ M 158283 04-14
TONGE SR 151629 04-03, 152045 04-03, 156751 04-03
TOOLEY W 156940 04-10
TOPIAR A 164679 04-13
TORREBLANCA J 150776 04-10
TORU M 154984 04-15
TOUMI AE 155888 04-15
TRABER DL 154960 04-03
TRABUCCHI M 152546 04-03, 158316 04-03, 162398 04-03, 163763 04-03
TRIGGLE DJ 161144 04-03
TRIPPODO NC 154960 04-03
TRISTAN M 150645 04-09
TROJANEK J 167017 04-01
TRULSON M 166157 04-03
TRUSTY DM 154970 04-03
TRZNADEL K 156551 04-15
TSENG LF 150405 04-04
TSENG TC 162958 04-03
TSUCHIE F 158513 04-03
TSUJIMOTO A 158477 04-03
TSUZUKI H 158516 04-03
TUCK JR 158771 04-03
TUMA DJ 163637 04-05
TUPIN JP 161581 04-14
TUREK IS 165371 04-11
TURNBULL MJ 150293 04-13
TURNER CE 157301 04-17
TURNER WJ 156134 04-09
TYLER HR 156075 04-14
TYRER P 159544 04-09, 162647 04-09
TYRER PJ 151162 04-10

U

U'PRICHARD T 158057 04-06
UDABE RU 155273 04-17
UEKI S 158492 04-04, 158494 04-04
UGARTE G 165995 04-03
UKAI Y 158507 04-03
ULIANA RL 160477 04-14
UNGER S 162155 04-12
UNGERER A 161123 04-04
UNGERSTEDT U 155903 04-03, 158274 04-03
UNWIN A 165621 04-08

V

VACEK J 150772 04-15
VACHON L 150620 04-13
VAISRUB S 154661 04-15
VALDIVA F 156739 04-07
VALVERDE-R C 150424 04-03
VALZELLI L 158287 04-04
VAN ABEELEN J 153042 04-04
VAN BRUGGEN JAA 163758 04-04
VAN DER KLEIJN E 160468 04-03
VAN GELDER GA 166736 04-05
VAN HARTESVELDT C 152438 04-05
VAN PRAAG HM 161905 04-09, 166726 04-13
VAN STRIK R 156817 04-13
VAN ZWIETEN PA 151626 04-13
VARDARIS RM 157125 04-04, 160747 04-04
VASKO MR 151631 04-03
VAUPEL DB 150318 04-03
VAZQUEZ AJ 163780 04-03
VEECH RL 162391 04-03
VELASCO-MARTIN A 165411 04-03
VENCOVSKY E 150769 04-17
VERGARA L 155273 04-17, 160643 04-11
VERSTEEG DHG 162895 04-03
VESELY Z 167017 04-01
VESSMAN J 160469 04-13
VESTERGAARD PB 160748 04-03
VIALA D 161340 04-03
VIDAL A 150254 04-11
VILJANEN M 151693 04-13
VILLARREAL JE 163769 04-04
VILLENEUVE A 150832 04-08, 153614 04-11, 155041 04-15
VILLENEUVE R 153614 04-11
VINCE JD 158353 04-17
VOGEL WH 150298 04-04
VOLAVKA J 163747 04-13
VOLKOVA RP 153278 04-10
VON KNORRING L 166985 04-10
VUILLON-CACCIUTTOLO G 152044 04-03

W

WADA JA 152044 04-03
WAGGONER WC 166735 04-15
WAGMAN IH 163313 04-03
WAGNER BM 166389 04-03
WAIZER J 150434 04-08
WAKAMATSU Y 158495 04-04, 158496 04-04
WAKEFIELD GS 161265 04-07
WALASZEK EJ 150405 04-04
WALDECK B 156757 04-04, 156806 04-06
WALL ME 156763 04-06, 163022 04-13
WALLACH MB 156811 04-02
WALTERS JR 157111 04-03
WALTERS K 157148 04-04
WANG CT 163763 04-03
WANG RIH 157037 04-15
WARD IL 150380 04-04
WARDELL W 166722 04-13
WARNING N 166689 04-03
WASER PG 156813 04-03, 157143 04-03
WASIK A 156562 04-11
WATANABE S 158330 04-13
WATANABE Y 166908 04-09
WATSON RD 156741 04-08
WATT DC 153121 04-09
WAUQUIER A 150300 04-04
WAWSCHINEK O 156848 04-06
WAY EL 156822 04-03, 166694 04-03
WEABER TH 166735 04-15
WEBER MB 163681 04-11
WEBSTER CD 153100 04-13, 157039 04-04
WEDEKING PW 153599 04-04
WEIDEN PL 150843 04-15
WEIGHT FF 162394 04-03
WEIL-MALHERBE H 151650 04-03
WEINER M 163696 04-04
WEINER N 159368 04-03
WEINFELD RE 150413 04-06
WEINSTEIN B 156872 04-01
WEINSTEIN MR 155041 04-15
WEINSTOCK M 157040 04-04
WEINTRAUB M 166722 04-13
WEISS CF 152066 04-11
WELBEL L 156563 04-08, 156565 04-09
WELLS DG 152036 04-15
WENDER PH 156155 04-11
WENDT G 160467 04-13
WENGER GR 160639 04-03
WERRY JS 153629 04-17

WERTZ WJ 152708 04-08
WESSELING H 158304 04-05
WESTFALL DP 157110 04-03
WESTLAKE RJ 160965 04-15
WESTON MJ 165621 04-08
WHEATLEY D 155270 04-17
WHEELER N 160641 04-04
WHISHAW IQ 150352 04-04
WHITAKER CA 157153 04-14
WHITE HL 160545 04-03
WHITEHEAD A 162639 04-09
WIDMAN M 156799 04-03, 156801 04-03
WIKLE 155239 04-17
WILBER JF 157344 04-13
WILENSKY AJ 162949 04-03
WILEY JN 158321 04-04
WILLIAM IC 155254 04-13
WILLIAMS A 163759 04-04
WILLIAMS B 153197 04-14
WILLIAMS FM 151163 04-13
WILLIAMS JD 162170 04-11
WILLIAMS JGL 153197 04-14
WILLIAMS JR 163280 04-17
WILLIAMS N 157185 04-03
WILLIAMS RB 153202 04-03, 154261 04-03
WILLINSKY MD 158004 04-04
WILLIS WD 157112 04-03
WILSON AE 156812 04-01
WILSON IC 155252 04-03, 155257 04-09, 157343 04-14, 157344 04-13, 160824 04-13
WILSON JD 159345 04-14
WILSON MC 157998 04-04
WINSNES A 151351 04-03
WINTER JC 156645 04-04, 163753 04-04
WINTERS WD 160633 04-03
WISE CD 158280 04-04
WISE TN 153273 04-15
WISER WC 152131 04-13
WISSING F 150582 04-03
WNEK DJ 157136 04-04
WOJDYSLAWSKA I 156564 04-08
WOLAK E 156567 04-08
WOLF H 155909 04-03
WOLF SM 166033 04-15
WOLSTENCROFT JH 156803 04-03
WORM-PETERSEN J 151694 04-11
WORSHAM RW 152191 04-04
WRAAE O 163320 04-03
WRAY SR 157041 04-04, 157042 04-04
WRIGHT DC 153267 04-14, 163761 04-04
WRIGHT GE 156867 04-06
WRIGHT J 150315 04-03
WUTTKE W 157064 04-04
WYATT R 165941 04-03
WYATT RJ 158587 04-08, 161892 04-17

X

XAVIER CM 156741 04-08

Y

Y ITOH Y 158504 04-04
YAAR I 156778 04-11
YAFFE SJ 152066 04-11, 159352 04-11
YAHR MD 163805 04-13
YAJIMA T 158509 04-03
YAJIMA Y 166908 04-09
YAMADA K 158492 04-04
YAMADA M 155553 04-01
YAMAHATA Y 150581 04-03
YAMAMOTO H 158495 04-04, 158496 04-04
YAMAMOTO J 155794 04-10
YAMASAKI M 158497 04-03
YAMATSU K 158508 04-04
YAMAUCHI D 161142 04-03
YANAGI Y 158478 04-03
YANAURA S 158488 04-04
YANG HT 160457 04-03
YARBROUGH GG 158773 04-03
YARYURA-TOBIAS JA 150953 04-13
YATES C 156940 04-10
YOKEL RA 163766 04-04
YOLLES S 160750 04-03
YORK DH 152439 04-13, 160635 04-03
YOUNG GC 158012 04-13
YOUNG LD 164715 04-04

Z

ZAHN TP 156155 04-11
ZAK SB 151906 04-03
ZAKOWSKA-DABROWSKA T 150744 04-09
ZALCMAN S 152715 04-14
ZAMIATOWSKI R 152162 04-03
ZAMPONI A 150631 04-15
ZARCONE VP 158300 04-14
ZEMLAN FP 150380 04-04
ZENKER N 150315 04-03
ZIEGLER MG 160646 04-03
ZIMMER LE 153054 04-14
ZIMMERBERG B 163776 04-03
ZIMMERMANN E 162049 04-03, 162738 04-03
ZIVKOVIC B 158182 04-03
ZOCH C 155273 04-17, 160643 04-11
ZOLOVICK AJ 152428 04-04
ZONTA N 163775 04-03
ZSOTER TT 151155 04-13
ZUBICK H 156075 04-14
ZUIDGEEST TLB 160468 04-03
ZUPANC S 156639 04-03
ZURBORN R 156892 04-08
ZWERDLING D 165567 04-15
ZWOZDZIAK W 151377 04-11

SUBJECT INDEX

[The Subject Index is machine generated. Keywords in the titles of abstracts appear alphabetically in the left hand margin; under each keyword is a list of titles in which the keyword appears. The spelling of words in the titles of abstracts has not been changed; hence, two spellings of the same word may appear in this index -- for example, BEHAVIOR and BEHAVIOUR.]

3H DANSYL
AN ASSAY PROCEDURE FOR TRYPTAMINE IN BRAIN AND SPINAL CORD USING ITS 3H DANSYL DERIVATIVE.
161380 04-06

ABNORMAL
DOPAMINE AND ABNORMAL MOVEMENTS.
150221 04-11
ABNORMAL O-METHYLATED DOPAMINE METABOLITES: THE ENDOGENOUS TOXINS OF SCHIZOPHRENIA OR PARKINSONISM
155905 04-13
THE EFFECT OF M-TYROSINE ON TREMOR AND ON ABNORMAL MOVEMENTS IN MONKEYS WITH VENTROMEDIAL TEGMENTAL LESIONS.
158274 04-03
CHARACTERISTICS OF ABNORMAL BEHAVIOR INDUCED BY 2-(2,6 DICHLOROPHENYLAMINO)-2 IMIDAZOLINE (ST-155) IN MICE.
158494 04-04

ABNORMALITIES
NEUROLEPTIC TREATMENT OF PRISONERS WITH MENTAL ABNORMALITIES.
150749 04-11
PHENOTHIAZINE INDUCED T-WAVE ABNORMALITIES: EFFECTS OF OVERNIGHT FASTING.
152961 04-15

ABRIDGED
ANNUAL ECDEU MEETING -- ABRIDGED PROCEEDINGS.
166874 04-07

ABSENCE
HYPERTHERMIA AND THE AMPHETAMINE AGGREGATION PHENOMENON: ABSENCE OF A CAUSAL RELATION.
155909 04-03

ABSORB
FLUPHENAZINE DECANOATE TRIAL IN CHRONIC INPATIENT SCHIZOPHRENICS FAILING TO ABSORB ORAL CHLORPROMAZINE.
156741 04-08

ABSORPTION
STUDY ON THE ABSORPTION AND EXCRETION OF RESERPINE AND ITS DERIVATIVE, 3IETASERPINE.
158514 04-03
THE EFFECT OF N-ALKYL CHAIN LENGTH AND STEREOCHEMISTRY ON THE ABSORPTION, METABOLISM AND URINARY EXCRETION OF N-ALKYLAMPHETAMINES IN MAN.
163800 04-13
CHLORPROMAZINE: EFFECTS OF ANTACIDS ON ITS GASTROINTESTINAL ABSORPTION.
166716 04-13

ABSTINENCE
THE ROLE OF DOPAMINE AND NOREPINEPHRINE IN THE NALOXONE INDUCED ABSTINENCE OF MORPHINE DEPENDENT MICE.
157116 04-03
SEX DIFFERENCES IN FIGHTING AND DEFENSE INDUCED IN RATS BY SHOCK AND D-AMPHETAMINE DURING MORPHINE ABSTINENCE.
161125 04-04

ABUSE
THE USE AND ABUSE OF THE PSYCHOTROPIC DRUGS.
160696 04-17
NEURONAL AND SOCIAL FACTORS IN THE ABUSE OF MARIHUANA.
160747 04-04
ABUSE OF BENZODIAZEPINE TRANQUILIZERS.
165679 04-17

ACADEMIC
DISCUSSION OF A SURVEY OF ACADEMIC AND INDUSTRIAL SCIENTISTS ON TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167109 04-17

ACATHISTIC
ACATHISTIC AND TASIKINETIC (MOVING PELVIS) SYNDROMES AND THE RESTLESS LEGS SYNDROME.
150772 04-15

ACCESSORY
ALTERATION OF SEXUAL BEHAVIOR AND SEX ACCESSORY GLANDS BY P-CHLOROPHENYLALANINE AND TESTOSTERONE.
150422 04-04

ACCIDENTAL
ACCIDENTAL INGESTION: METHADONE, PROPOXYPHENE (DARVON), OR DIPHENOXYLATE (LOMOTIL) POISONING.
161788 04-15

ACCOMPANIES
PRIMARY POLYURIA ACCOMPANIES HUNGER ELICITED BY INTRAHYPOTHALAMIC INJECTION OF NORADRENALINE.
156815 04-03

ACCUMULATION
ACCUMULATION, STORAGE AND RELEASE OF ADRENERGIC NEURON BLOCKING AGENTS AND RELATED DRUGS BY HUMAN PLATELETS.
150316 04-03
EFFECT OF SCOPOLAMINE ON THE CEREBRAL ACCUMULATION OF 14C-CATECHOLAMINES FROM 14C-TYROSINE.
151907 04-03
DEVELOPMENT AND CHARACTERISTICS OF THE HISTAMINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RABBIT CEREBRAL CORTEX. (UNPUBLISHED PAPER).
154372 04-03
UPTAKE AND ACCUMULATION OF 3H-6,7-DIHYDROXYTETRAHYDROISOQUINOLINE BY PERIPHERAL SYMPATHETIC NERVES IN VIVO.
163764 04-03
INFLUENCE OF AMPHETAMINES, PROTRIPTYLINE AND PARGYLINE ON THE TIME COURSE OF THE NOREPINEPHRINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RAT BRAIN.
165790 04-03

ACETALDEHYDE
ETHANOL AND ACETALDEHYDE METABOLISM IN RAT STRAINS GENETICALLY SELECTED FOR THEIR ETHANOL PREFERENCE.
160542 04-03

ACETATE
EVIDENCE FOR NONINVOLVEMENT OF CENTRAL CATECHOLAMINES IN COPPER ACETATE INDUCED OVULATION.
163797 04-03

ACETOXYCYCLOHEXIMIDE
NATURE AND AMPLITUDE OF THE EFFECTS OF ACETOXYCYCLOHEXIMIDE ON THE RETENTION OF AN INSTRUMENTAL TASK IN MICE.
161123 04-04

ACETYLCHOLINE
EFFECT OF SEVERAL BENZODIAZEPINES ON CONCENTRATIONS AND SPECIFIC ACTIVITIES OF CHOLINE AND ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
152546 04-03
EFFECT OF DESMETHYLIMIPRAMINE ON ACETYLCHOLINE UPTAKE BY SLICES OF RAT BRAIN CORTEX.
155494 04-03
EFFECTS OF DESIPRAMINE AND RESERPINE ON FREE AND BOUND ACETYLCHOLINE IN RAT BRAIN.
156807 04-03
ANTAGONISM BY PROTRIPTYLINE AND DESIPRAMINE OF THE RESPONSE OF THE VAS-DEFERENS OF THE RAT TO NOREPINEPHRINE, ACETYLCHOLINE AND POTASSIUM.
157110 04-03
ALTERATION OF CORTICAL AND RETICULAR ACETYLCHOLINE RELEASE BY ETHANOL IN VIVO.
158054 04-03
CORTICAL CUPS FOR COLLECTING FREE ACETYLCHOLINE IN AWAKE RATS. (UNPUBLISHED PAPER)
158057 04-06
INCREASE IN MOUSE AND RAT BRAIN ACETYLCHOLINE LEVELS BY DIAZEPAM.
160475 04-03
EFFECT OF VARIOUS SEDATIVE DRUGS ON LEVELS OF CHOLINE AND ACETYLCHOLINE AND ON TURNOVER RATE OF ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
162398 04-03
APPLICATION OF PRINCIPLES OF STEADY-STATE KINETICS TO MEASURE ACETYLCHOLINE TURNOVER RATE IN RAT SALIVARY GLANDS: EFFECT OF DEAFFERENTATION AND DUCT LIGATION.
163763 04-03

ACETYLCHOLINESTERASE
TRICYCLIC ANTIDEPRESSANTS: ACTION ON SYNAPTOSOMAL ACETYLCHOLINESTERASE AND ATPASE IN THE BRAIN OF GUINEA-PIGS AND SUBCELLULAR DISTRIBUTION.
156813 04-03

ACETYLSALICYLIC
SELF-ADMINISTRATION OF ACETYLSALICYLIC ACID AND COMBINATIONS WITH CODEINE AND CAFFEINE IN RHESUS MONKEYS.
157064 04-04

ACETYLSECOHEMICHOLINIUM-3
ACETYLSECOHEMICHOLINIUM-3, A NEW CHOLINE ACETYLTRANSFERASE INHIBITOR USEFUL IN NEUROPHARMACOLOGICAL STUDIES.
156812 04-01

ACETYLTRANSFERASE
ACETYLSECOHEMICHOLINIUM-3, A NEW CHOLINE ACETYLTRANSFERASE INHIBITOR USEFUL IN NEUROPHARMACOLOGICAL STUDIES.
156812 04-01

ACH
EFFECTS OF L-DOPA AND RESERPINE ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158495 04-04

EFFECTS OF L-DOPA AND DDC ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158496 04-04

ACHILLES
THE INFLUENCE OF METHAMPHETAMINE AND DIAZEPAM ON THE AMPLITUDE CHANGES OF THE ACHILLES TENDON AND HOFFMANN REFLEX DURING A MENTAL TASK.
152074 04-14

ACID
SIMULTANEOUS MEASUREMENT OF TYROSINE AND TRYPTOPHAN HYDROXYLASE ACTIVITIES IN BRAIN IN VIVO USING AN INHIBITOR OF THE AROMATIC AMINO ACID DECARBOXYLASE.
150402 04-03

INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE.
150583 04-03

EFFECT OF PENTOBARBITAL ON AMINO ACID AND UREA FLUX IN THE ISOLATED DOG BRAIN.
151733 04-03

A COMPARATIVE STUDY OF THE ACTION OF ACTINOMYCIN D AND ACTINOMYCINIC ACID ON THE CENTRAL NERVOUS SYSTEM WHEN INJECTED INTO THE CEREBROSPINAL FLUID OF HIGHER ANIMALS.
152436 04-05

AN EXAMINATION OF ACID BASE EQUILIBRIA OF 1,4 BENZODIAZEPINES BY SPECTROPHOTOMETRY.
155902 04-16

LYSERGIC ACID DIETHYLAMIDE: ITS EFFECTS ON HUMAN CHROMOSOMES AND THE HUMAN ORGANISM IN UTERO. A REVIEW OF CURRENT FINDINGS.
156527 04-15

DIFFERENTIAL EFFECTS OF AMPHETAMINE, FENFLURAMINE AND NORFENFLURAMINE STEREOISOMERS ON THE INCREASE OF STRIATUM HOMOVANILLIC ACID IN RATS.
156759 04-03

SELF-ADMINISTRATION OF ACETYLSALICYLIC ACID AND COMBINATIONS WITH CODEINE AND CAFFEINE IN RHESUS MONKEYS.
157064 04-04

PHARMACOLOGICAL STUDIES ON MECHANISM OF ANTIPARKINSONIAN DRUGS (REPORT 2): ELEVATION OF STRIATAL HOMOVANILLIC ACID CONTENT BY OXOTREMORINE AND ITS MODIFICATION BY ANTICHOLINERGICS.
158501 04-03

THE EFFECT OF PHENOBARBITONE ANESTHESIA UPON SOME ORGANIC PHOSPHATES, GLYCOLYTIC METABOLITES AND CITRIC ACID CYCLE ASSOCIATED INTERMEDIATES OF THE RAT BRAIN.
160226 04-03

EFFECTS OF LYSERGIC ACID DIETHYLAMIDE ON THE UPTAKE AND RETENTION OF BRAIN 5-HYDROXYTRYPTAMINE IN VIVO AND IN VITRO.
160646 04-03

ACID MONOAMINE METABOLITES IN THE CEREBROSPINAL FLUID OF PARKINSONIAN PATIENTS TREATED WITH LEVODOPA ALONE OR COMBINED WITH DECARBOXYLASE INHIBITOR.
160650 04-13

D-LYSERGIC ACID DIETHYLAMIDE (LSD) -- EFFECT ON BIOGENIC AMINES EXCRETION IN MAN.
160802 04-13

THE EFFECT OF THE CONVULSANT 3-MERCAPTOPROPIONIC ACID ON ENZYMES OF THE GAMMA-AMINOBUTYRATE SYSTEM IN THE RAT CEREBRAL CORTEX.
161378 04-03

EFFECTS OF SOME CHOLINERGIC, ADRENERGIC AND SEROTONINERGIC COMPOUNDS, GLUTAMIC ACID AND GABA ON HIPPOCAMPAL SEIZURES.
161963 04-03

THE SUBCELLULAR DISTRIBUTION OF LYSERGIC ACID DIETHYLAMIDE IN THE RAT BRAIN.
162956 04-03

EFFECT OF CLONIDINE ON THE 5-HYDROXYTRYPTAMINE AND 5-HYDROXYINDOLEACETIC ACID BRAIN LEVELS.
166695 04-03

ACIDS
EFFECT OF PROPRANOLOL ON FREE FATTY ACIDS OF MICE PLASMA DURING A PASSIVE AVOIDANCE TEST.
157155 04-03

THE EFFECT OF HEXAFLUORODIETHYL ETHER (FLUROTHYL) ON THE METABOLISM OF RAT BRAIN AMINO ACIDS LABELLED BY (U-14C)GLUCOSE.
160767 04-03

ACONITASE
EFFECT OF LITHIUM ON BRAIN ACONITASE ACTIVITY.
163630 04-03

ACQUISITION
INFLUENCE OF CHANGES IN ADRENERGIC AND CHOLINERGIC ACTIVITY UPON ACQUISITION OF OPERANT DISCRIMINATION IN ALBINO RATS.
154639 04-04

THE EFFECTS OF CINANSERIN, A POTENT SEROTONIN ANTAGONIST, ON THE ACQUISITION OF A RUNNING RESPONSE IN THE RAT.
156808 04-04

ACQUISITION AND LOSS OF TOLERANCE TO 1 DELTA9-TRANS-TETRAHYDROCANNABINOL IN RATS ON AN AVOIDANCE SCHEDULE.
157039 04-04

THE EFFECT OF ALPHA-AMANITIN ON PASSIVE AND ACTIVE AVOIDANCE ACQUISITION IN MICE.
157154 04-04

EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING.
158000 04-04

EFFECTS OF PIRACETAM (SKF-38462) ON ACQUISITION, RETENTION, AND ACTIVITY IN THE GOLDFISH.
162276 04-04

ACROMEGALY
CHLORPROMAZINE TREATMENT AND GROWTH HORMONE SECRETORY RESPONSES IN ACROMEGALY.
156770 04-11

CHILDHOOD ACROMEGALY: SUCCESSFUL THERAPY WITH CONVENTIONAL RADIATION AND EFFECTS OF CHLORPROMAZINE ON GROWTH HORMONE AND PROLACTIN SECRETION.
160653 04-13

ACTH
EFFECT OF TWO ACTH ANALOGS ON NORADRENALINE METABOLISM IN RAT BRAIN.
162895 04-03

ACTINOMYCIN
A COMPARATIVE STUDY OF THE ACTION OF ACTINOMYCIN D AND ACTINOMYCINIC ACID ON THE CENTRAL NERVOUS SYSTEM WHEN INJECTED INTO THE CEREBROSPINAL FLUID OF HIGHER ANIMALS.
152436 04-05

ACTINOMYCINIC
A COMPARATIVE STUDY OF THE ACTION OF ACTINOMYCIN D AND ACTINOMYCINIC ACID ON THE CENTRAL NERVOUS SYSTEM WHEN INJECTED INTO THE CEREBROSPINAL FLUID OF HIGHER ANIMALS.
152436 04-05

ACTION
THE COMPLEXITY OF THE INHIBITORY ACTION OF DICOUMAROL ON THE MIXED FUNCTION OXIDASE SYSTEM OF RAT LIVER MICROSOMES.
150582 04-03

1766-CERM: A NEW ANTIDEPRESSANT WITH RAPID ACTION.
150644 04-09

THE ACTION OF NOVERIL ON THE BIOELECTRIC ACTIVITY OF THE BRAIN.
150744 04-09

THE CENTRAL ACTION OF ANTIHYPERTENSIVE DRUGS, MEDIATED VIA CENTRAL ALPHA-RECEPTORS.
151626 04-13

ON THE MECHANISM OF THE ANTICONVULSIVE ACTION OF DERIVATIVES OF BENZODIAZEPINE AND DIPHENYLHYDANTOIN.
151814 04-03

ACTION OF CARBAMAZEPINE (TEGRETOL) AND APHENDIONE ON REACTIONS PROVOKED BY INTRAAMYGDALOID ADMINISTRATION OF CARBACHOLINE TO RABBITS.
151815 04-04

DESMETHYLIMIPRAMINE AND THE HYPOTENSIVE ACTION OF CLONIDINE IN THE RABBIT.
152142 04-03

THE ACTION OF ANTIDEPRESSANTS AND CONVULSIVE TREATMENT UPON THE HIGHER NERVOUS ACTIVITY IN DEPRESSIVE STATES.
152152 04-09

A COMPARATIVE STUDY OF THE ACTION OF ACTINOMYCIN D AND ACTINOMYCINIC ACID ON THE CENTRAL NERVOUS SYSTEM WHEN INJECTED INTO THE CEREBROSPINAL FLUID OF HIGHER ANIMALS.
152436 04-05

DOPAMINE RECEPTOR BLOCKADE -- A CENTRAL ACTION OF CHLORPROMAZINE ON STRIATAL NEURONS.
152439 04-13

APOMORPHINE INDUCED AGGRESSION: CHARACTERISTICS, PHARMACOLOGICAL INTERVENTION, AND SITE OF ACTION.
155246 04-03

THE EFFECTS OF THYROID STATE ON THE ACTION AND DISPOSITION OF PHENOTHIAZINES IN RODENTS.
155259 04-03

BIPHASIC ACTION OF 5-HYDROXYTRYPTAMINE INHIBITOR ON FENFLURAMINE INDUCED ANOREXIA.
156804 04-03

NORADRENERGIC AND CHOLINERGIC ACTION ON NEURONAL ACTIVITY DURING SELF-STIMULATION BEHAVIOR IN THE RAT.
156810 04-04

TRICYCLIC ANTIDEPRESSANTS: ACTION ON SYNAPTOSOMAL ACETYLCHOLINESTERASE AND ATPASE IN THE BRAIN OF GUINEA-PIGS AND SUBCELLULAR DISTRIBUTION.
156813 04-03

ON THE MODE OF ACTION OF APOMORPHINE.
156824 04-03

INTERACTION OF STRESS AND PSYCHOTOMIMETIC DRUG ACTION: POSSIBLE IMPLICATION FOR PSYCHOSIS.
157042 04-04

ANTIANXIETY ACTION OF BENZODIAZEPINES: DECREASE IN ACTIVITY OF SEROTONIN NEURONS IN THE PUNISHMENT SYSTEM.
158280 04-04

INVOLVEMENT OF BRAIN CHOLINERGIC MECHANISMS IN THE ACTION OF CHLORPROMAZINE. (UNPUBLISHED PAPER).
158316 04-03

CENTRAL NERVOUS ACTION OF 6-HYDROXYDOPAMINE.
158497 04-03

ELECTROPHYSIOLOGICAL STUDIES ON ACTION OF PSYCHOTROPIC DRUGS IN RELATION TO BRAIN MONOAMINES.
158505 04-03

FURTHER EVIDENCE IN SUPPORT OF A COMMON ADRENERGIC MECHANISM FOR THE FACILITATORY ACTION ON LEARNING OF AMPHETAMINE AND NICOTINE IN RATS.
158772 04-04

A DISCRIMINATIVE STUDY OF THE ACTION OF A PSYCHOTROPIC DRUG BY THE USE OF THE B.P.R.S. CARDS.
161278 04-11

MECHANISMS OF LITHIUM ACTION.
161596 04-14

FLUPHENAZINE ENANTHATE AND FLUPHENAZINE DECANOATE: A COMPARISON OF THEIR DURATION OF ACTION AND MOTOR SIDE-EFFECTS.
161905 04-09

THE DUAL ACTION OF THIOTHIXENE.
162171 04-08

MODE OF ACTION OF HALLUCINOGENIC MOLECULES.
162336 04-03

LITHIUM INDUCED POLYDIPSIA AND POLYURIA: MECHANISM OF ACTION
166071 04-13

POSSIBLE SITE OF ACTION OF GEROVITAL-H3 IN THE CENTRAL NERVOUS SYSTEM.
166389 04-03

ACTIONS

CENTRAL NERVOUS ACTIONS AND SCREENING METHODS OF ANTIDEPRESSANTS.
150397 04-03

THE POSSIBLE ROLE OF TRYPTAMINE IN BRAIN FUNCTION AND ITS RELATIONSHIP TO THE ACTIONS OF LSD-LIKE HALLUCINOGENS. (UNPUBLISHED PAPER).
151656 04-03

ANTAGONISTIC ACTIONS OF ALPHA-METHYLNORADRENALINE DERIVED FROM ALPHA-METHYLDOPA.
156803 04-03

EFFECT OF 6-HYDROXYDOPAMINE, 5, 6 DIHYDROXYTRYPTAMINE AND RAPHE LESIONS ON THE ANTINOCICEPTIVE ACTIONS OF MORPHINE IN RATS.
157141 04-03

SUBCELLULAR ACTIONS OF BENZODIAZEPINES.
160470 04-03

SOME AGONISTIC ACTIONS OF THE MORPHINE ANTAGONIST LEVALLORPHAN ON BEHAVIOR AND BRAIN MONOAMINES IN THE RAT.
163757 04-03

PHARMACOLOGY: DRUG ACTIONS AND REACTIONS.
164233 04-17

ACTIVATED

COMPARATIVE EFFECTS OF SUBSTITUTED PHENOTHIAZINES AND THEIR FREE RADICALS ON (NA+,K+)- ACTIVATED ADENOSINE TRIPHOSPHATASE.
156640 04-03

ACTIVATION

ACTIVATION OF LORDOTIC RESPONDING IN FEMALE RATS BY SUPPRESSION OF SEROTONERGIC ACTIVITY.
150380 04-04

INHIBITION OF MORPHINE INDUCED PITUITARY ADRENAL ACTIVATION BY DEXAMETHASONE IN THE FEMALE RAT (37506).
162049 04-03

THE ACTIVATION OF PINEAL HYDROXYINDOLE-O-METHYLTRANSFERASE BY PSYCHOTOMIMETIC DRUGS.
165999 04-03

ACTIVE

IS THE UPTAKE OF NARCOTIC ANALGESICS BY CEREBRAL CORTICAL SLICES MEDIATED IN PART BY ACTIVE TRANSPORT?
151631 04-03

PLASMA PROTEIN BINDING OF 7-HYDROXY-DELTA1-TETRAHYDROCANNABINOL: AN ACTIVE DELTA1-TETRAHYDROCANNABINOL METABOLITE.
156799 04-03

IN VITRO INHIBITORY EFFECTS OF NARCOTIC ANALGESICS AND OTHER PSYCHOTROPIC DRUGS ON THE ACTIVE UPTAKE OF NOREPINEPHRINE IN MOUSE BRAIN TISSUE.
157063 04-03

ECS PRODUCED DISRUPTION OR FACILITATION OF DISCRIMINATED ACTIVE AVOIDANCE PERFORMANCE IN RATS.
157094 04-03

THE EFFECT OF ALPHA-AMANITIN ON PASSIVE AND ACTIVE AVOIDANCE ACQUISITION IN MICE.
157154 04-04

EFFECTS OF BEHAVIORALLY ACTIVE DRUGS IN A CONFLICT PUNISHMENT PROCEDURE IN RATS.
158281 04-04

ACTIVITIES

EFFECTS OF CHLORPROMAZINE AND PHENOBARBITAL ON RAT LIVER AND BRAIN OXIDATIVE N-OXIDASE AND N-DEMETHYLASE ACTIVITIES.
150399 04-03

SIMULTANEOUS MEASUREMENT OF TYROSINE AND TRYPTOPHAN HYDROXYLASE ACTIVITIES IN BRAIN IN VIVO USING AN INHIBITOR OF THE AROMATIC AMINO ACID DECARBOXYLASE.
150402 04-03

EFFECT OF SEVERAL BENZODIAZEPINES ON CONCENTRATIONS AND SPECIFIC ACTIVITIES OF CHOLINE AND ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
152546 04-03

ACTIVITY

EFFECTS OF L-TRYPTOPHAN ON MOTOR ACTIVITY IN MICE.
150296 04-04

THE EFFECT OF PROLONGED LITHIUM ADMINISTRATION ON ACTIVITY, REACTIVITY, AND ENDURANCE IN THE RAT.
150324 04-04

THE EFFECTS OF 6-HYDROXYDOPAMINE, DOPAMINE AND DL-NOREPINEPHRINE ON FOOD INTAKE AND WATER CONSUMPTION, SELF-STIMULATION, TEMPERATURE AND ELECTROENCEPHALOGRAPHIC ACTIVITY IN THE RAT.
150352 04-04

EFFECTS OF LITHIUM CHLORIDE ON THE ACTIVITY OF RATS TESTED ALONE OR IN PAIRS.
150356 04-04

ACTIVATION OF LORDOTIC RESPONDING IN FEMALE RATS BY SUPPRESSION OF SEROTONERGIC ACTIVITY.
150380 04-04

SYNTHESIS AND CNS DEPRESSANT ACTIVITY OF IMIDAZOLINONE GLYOXYLATES.
150415 04-02

DOPAMINE AND NORADRENALINE RECEPTOR STIMULATION: REVERSAL OF RESERPINE INDUCED SUPPRESSION OF MOTOR ACTIVITY.
150664 04-03

THE ACTION OF NOVERIL ON THE BIOELECTRIC ACTIVITY OF THE BRAIN.
150744 04-09

ACTIVITY OF BRAIN PHENOLSULFOTRANSFERASE FOR THE CATECHOLAMINES AND THEIR METABOLITES. (UNPUBLISHED PAPER).
151657 04-03

MESCALINE-LIKE ACTIVITY OF 2-AMINO-7-HYDROXYTETRALIN.
152143 04-12

THE ACTION OF ANTIDEPRESSANTS AND CONVULSIVE TREATMENT UPON THE HIGHER NERVOUS ACTIVITY IN DEPRESSIVE STATES.
152152 04-09

THE EFFECTS OF SPREADING DEPRESSION ON PENICILLIN INDUCED EPILEPTIFORM ACTIVITY IN RAT BRAIN.
152438 04-05

EFFECTS OF MORPHINE ON CATECHOLAMINE TURNOVER, CYCLIC 3,5 AMP CONCENTRATIONS AND TYROSINE HYDROXYLASE ACTIVITY IN RAT TISSUES. (UNPUBLISHED PAPER).
152549 04-03

THE PROBLEM OF CLINICAL ACTIVITY OF LONG-ACTING NEUROLEPTICS.
153278 04-10

DELTA9-TETRAHYDROCANNABINOL AND ETHANOL: DIFFERENTIAL EFFECTS ON SYMPATHETIC ACTIVITY IN DIFFERING ENVIRONMENTAL SETTING.
154261 04-03

INFLUENCE OF CHANGES IN ADRENERGIC AND CHOLINERGIC ACTIVITY UPON ACQUISITION OF OPERANT DISCRIMINATION IN ALBINO RATS.
154639 04-04

THE INFLUENCE OF P-CHLOROPHENYLALANINE ON THE EFFECT OF 5-HYDROXYTRYPTOPHAN ON SPINAL SYNAPTIC ACTIVITY IN CHRONIC SPINAL AND RESERPINIZED CATS.
154959 04-03

ANTIDEPRESSANTS AND LIVER TRYPTOPHAN PYRROLASE ACTIVITY.
155222 04-03

TRH: ENHANCEMENT OF DOPA ACTIVITY IN NORMAL INTACT, HYPOPHYSECTOMIZED AND THYROIDECTOMIZED ANIMALS.
155252 04-03

INHIBITION OF BRAIN DOPAMINE-BETA-HYDROXYLASE ACTIVITY BY METHIMAZOLE.
156322 04-03

GLYCOGEN CONTENT AND PHOSPHORYLASE ACTIVITY IN LIVER AND SKELETAL MUSCLE OF NORMAL AND CHRONICALLY MORPHINIZED RATS.
156638 04-03

ADRENAL AND STRIATAL TYROSINE HYDROXYLASE ACTIVITY AFTER METHAMPHETAMINE.
156644 04-03

EFFECTS OF AMANTADINE, AMPHETAMINE AND APOMORPHINE ON THE LOCOMOTOR ACTIVITY IN RATS.
156752 04-04

NORADRENERGIC AND CHOLINERGIC ACTION ON NEURONAL ACTIVITY DURING SELF-STIMULATION BEHAVIOR IN THE RAT.
156810 04-04

COMPARISON OF THE EFFECT OF DELTA9-TETRAHYDROCANNABINOL, 11-HYDROXY-DELTA9-TETRAHYDROCANNABINOL, AND ETHANOL ON THE ELECTROPHYSIOLOGICAL ACTIVITY OF THE GIANT AXON OF THE SQUID.
156816 04-03

CORRELATION BETWEEN BRAIN DOPAMINE LEVELS AND L-DOPA ACTIVITY IN ANTIPARKINSON TESTS.
156823 04-06

EXPLORATORY ACTIVITY: GENETIC ANALYSIS OF ITS MODIFICATION BY SCOPOLAMINE AND AMPHETAMINE.
157099 04-04

DOPAMINERGIC NEURONS: EFFECT OF ANTIPSYCHOTIC DRUGS AND AMPHETAMINE ON SINGLE CELL ACTIVITY.
157111 04-03

ANTAGONISTIC ACTIVITY OF SOME PHENOTHIAZINE DERIVATIVES AGAINST NEUROHUMORAL TRANSMITTERS.
157139 04-03

ACUTE AND CHRONIC TOLERANCE TO NICOTINE MEASURED BY ACTIVITY IN RATS.
157151 04-03

DIFFERENTIAL EFFECTS OF DELTA9-THC ON LOCOMOTOR BEHAVIOR IN ACTIVITY WHEEL HABITUATED AND NONHABITUATED RATS.
157182 04-04

SOME OBSERVATIONS ON THE CIRCADIAN RHYTHM OF LOCOMOTOR ACTIVITY OF MICE AFTER DEPLETION OF CEREBRAL MONOAMINES.
158002 04-03

ANTIANXIETY ACTION OF BENZODIAZEPINES: DECREASE IN ACTIVITY OF SEROTONIN NEURONS IN THE PUNISHMENT SYSTEM.
158280 04-04

ACTIVITY OF BENZODIAZEPINES ON AGGRESSIVE BEHAVIOR IN RATS AND MICE.
158287 04-04

EFFECTS OF CHRONIC ADMINISTRATION OF BENZODIAZEPINES ON EPILEPTIC SEIZURES AND BRAIN ELECTRICAL ACTIVITY IN PAPIO-PAPIO.
158290 04-03

SPONTANEOUS MOTOR ACTIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL MOTOR ACTIVITY AND SENSORY ACTIVITY.
158486 04-04

AUDITORY SENSITIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL SENSORY ACTIVITY AND SPONTANEOUS MOTOR ACTIVITY.
158487 04-03

THE NOOTROPIC APPROACH TO THE PHARMACOLOGY OF THE INTEGRATIVE ACTIVITY OF THE BRAIN.
159396 04-07

PHARMACOLOGICAL ACTIVITY OF SOME BENZODIAZEPINES AND THEIR METABOLITES.
160464 04-05

FURTHER STUDIES ON THE ADRENERGIC NEURON BLOCKING ACTIVITY OF SOME BETA-ADRENOCEPTOR ANTAGONISTS AND GUANETHIDINE.
161141 04-03

EFFECTS OF L-DOPA AND L-3-METHOXYTYROSINE ON D-METHAMPHETAMINE INDUCED MOTOR ACTIVITY AND SEIZURES INDUCED BY ELECTROSHOCK (37475).
162046 04-03

EFFECTS OF PIRACETAM (SKF-38462) ON ACQUISITION, RETENTION, AND ACTIVITY IN THE GOLDFISH.
162276 04-04

DIFFERENTIAL EFFECTS OF RESERPINE AND ALPHA-METHYL-P-TYROSINE ON NOREPINEPHRINE AND DOPAMINE INDUCED BEHAVIORAL ACTIVITY.
162277 04-04

THE EFFECT OF SOME SUBSTANCES OF THE PHENOTHIAZINE SERIES AND OF ALPHA-ADRENERGIC BLOCKING AGENTS ON SPINAL CORD ACTIVITY UNDER CONDITIONS OF DISRUPTION OF INHIBITORY MECHANISMS BY TETANUS TOXIN.
162921 04-03

A COMPARISON OF THE PHARMACOLOGICAL ACTIVITY OF DELTA9-TETRAHYDROCANNABINOL AND ITS MONOHYDROXYLATED METABOLITES IN MAN.
163022 04-13

ADENYL CYCLASE ACTIVITY IN KIDNEYS OF RATS WITH LITHIUM INDUCED POLYURIA.
163320 04-03

THE IN VIVO EFFECT OF TROPOLONE ON DOPAMINE METABOLISM AND THE CATECHOL-O-METHYLTRANSFERASE ACTIVITY IN THE STRIATUM OF THE RAT.
163321 04-03

EFFECT OF LITHIUM ON BRAIN ACONITASE ACTIVITY.
163630 04-03

A COMPARISON OF THE EFFECTS OF D-AMPHETAMINE AND MORPHINE UPON THE LOCOMOTOR ACTIVITY OF MICE TREATED WITH DRUGS WHICH ALTER BRAIN CATECHOLAMINE CONTENT.
163769 04-04

DECREASED ANTINOCICEPTIVE ACTIVITY OF MORPHINE IN RATS PRETREATED INTRAVENTRICULARLY WITH 5,6 DIHYDROXYTRYPTAMINE, A LONG-LASTING SELECTIVE DEPLETOR OF BRAIN SEROTONIN.
163775 04-03

EVIDENCE FOR CATECHOLAMINE INVOLVEMENT IN THE SUPPRESSION OF LOCOMOTOR ACTIVITY DUE TO HYPOXIA.
163802 04-03

BIOLOGICAL ACTIVITY OF PENTOBARBITAL METABOLITES.
164240 04-02

DIAZEPAM METABOLISM AND ANTICONVULSANT ACTIVITY IN NEWBORN ANIMALS.
166691 04-03

A COMPARISON OF THE EFFECTS OF SOTALOL AND OF THE ISOMERS OF PRACTOLOL ON ADRENERGIC NERVOUS ACTIVITY.
166789 04-03

SERUM AND BRAIN CONCENTRATIONS OF PENTAZOCINE IN RELATION TO ANALGESIC ACTIVITY IN MICE.
167018 04-03

ACUTE

SLEEPLESSNESS IN ACUTE AND CHRONIC SCHIZOPHRENIA -- RESPONSE TO HALOPERIDOL AND ANTIPARKINSONISM AGENTS.
150351 04-08

DEPTH PERCEPTION IN RATS FOLLOWING ACUTE OR CHRONIC INJECTIONS OF DL-DELTA9-TETRAHYDROCANNABINOL.
150420 04-04

FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION.
150424 04-03

A CONTROLLED DOUBLE-BLIND COMPARISON BETWEEN LOXAPINE SUCCINATE AND CHLORPROMAZINE IN ACUTE NEWLY HOSPITALIZED SCHIZOPHRENIC PATIENTS.
150835 04-08

SEVERE INFECTIOUS HEPATITIS COMPLICATED WITH ACUTE PSYCHOSIS DURING HYDROCORTISONE TREATMENT.
151380 04-11

ACUTE RENAL FAILURE AND LITHIUM INTOXICATION.
152032 04-15

ENCEPHALOPATHY IN ACUTE LEUKEMIA ASSOCIATED WITH METHOTREXATE THERAPY.
152036 04-15

ANALYSIS OF CLINICAL EXPERIENCES OBTAINED IN 100 CASES OF ACUTE APAURINE DIAZEPAM INTOXICATION.
152085 04-15

ACUTE RESPONSES OF SCHIZOPHRENIC CHILDREN TO A SEDATIVE AND STIMULATING NEUROLEPTIC: A PHARMACOLOGIC YARDSTICK.
152208 04-08

MESORIDAZINE VERSUS CHLORPROMAZINE IN ACUTE SCHIZOPHRENIA: A DOUBLE-BLIND INVESTIGATION.
152708 04-08

ACUTE PAROTITIS ASSOCIATED WITH DEPRESSION AND PSYCHOACTIVE DRUG THERAPY.
155089 04-14

TASTE AVERSIONS AND ACUTE METHYLMERCURY POISONING IN RATS.
155341 04-05

ACUTE CHLORPROMAZINE POISONING.
156551 04-15

ACUTE VESTIBULAR EFFECTS OF MARIJUANA.
156642 04-13

TREATMENT OF ACUTE SCHIZOPHRENIA WITH MOLINDONE.
156643 04-08

ACUTE AND CHRONIC EFFECTS OF D- AND L-AMPHETAMINE ON SEIZURE SUSCEPTIBILITY IN MICE.
156821 04-03

ACUTE EFFECTS OF TWO TETRAHYDROCANNABINOLS (DELTA9-THC AND DELTA8-THC) ON WATER INTAKE IN WATER DEPRIVED RATS: IMPLICATIONS FOR BEHAVIORAL STUDIES ON MARIHUANA COMPOUNDS.
157149 04-04

ACUTE AND CHRONIC TOLERANCE TO NICOTINE MEASURED BY ACTIVITY IN RATS.
157151 04-03

ACUTE TOLERANCE TO DIAZEPAM IN CATS.
158295 04-03

EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF CANNABIS-SATIVA EXTRACT ON THE MOUSE KILLING BEHAVIOR OF RATS.
159568 04-04

KINETICS AND DYNAMICS OF RESPONSE TO HALOPERIDOL IN ACUTE SCHIZOPHRENIA -- A LONGITUDINAL STUDY OF THE THERAPEUTIC PROCESS.
162869 04-08
THE TONIC VIBRATION REFLEX SEEN IN THE ACUTE SPINAL CAT AFTER TREATMENT WITH DOPA.
162892 04-03
EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF DESMETHYLIMIPRAMINE ON THE CONTENT OF NOREPINEPHRINE AND OTHER MONOAMINES IN THE RAT BRAIN.
166027 04-03
MODIFICATION OF SEROTONIN METABOLISM IN RAT BRAIN AFTER ACUTE OR CHRONIC ADMINISTRATION OF MORPHINE.
166698 04-03

ADAMANTYLAMINE
SHORT-TERM EFFECTS OF ADAMANTYLAMINE SULFATE INFUSIONS IN PARKINSON PATIENTS.
152111 04-11

ADAPTATION
EFFECT OF 6-HYDROXYDOPAMINE ON DARK ADAPTATION IN THE RAT RETINA.
159569 04-03

ADDICTION
THOUGHTS ON TREATMENT OF ADDICTION: EXPERIENCES WITH ARGINIL (GLUCOSE-1-PHOSPHATE-ARGININE).
151014 04-11
ADDICTION TO PREDNISONE.
151049 04-15
RECENT RESEARCH ON OPIATE ADDICTION -- REVIEW OF A NATIONAL PROGRAM.
155240 04-17
MULTIMODALITY APPROACHES TO THE TREATMENT AND PREVENTION OF OPIATE ADDICTION.
155241 04-17

ADENOSINE
COMPARATIVE EFFECTS OF SUBSTITUTED PHENOTHIAZINES AND THEIR FREE RADICALS ON (NA+,K+)- ACTIVATED ADENOSINE TRIPHOSPHATASE.
156640 04-03
ADENOSINE 3,5 MONOPHOSPHATE IN CEREBROSPINAL FLUID.
158154 04-13
INHIBITORY EFFECT OF METHYLXANTHINES ON THE ADENOSINE STIMULATED FORMATION OF CYCLIC AMP IN BRAIN SLICES.
158512 04-03
EFFECT OF N6O2-DIBUTYRYL CYCLIC 3,5 ADENOSINE MONOPHOSPHATE ON THE PINOCYTOSIS OF BRAIN CAPILLARIES OF MICE.
162960 04-03

ADENYL
ADENYL CYCLASE ACTIVITY IN KIDNEYS OF RATS WITH LITHIUM INDUCED POLYURIA.
163320 04-03

ADENYLATE
DOPAMINE SENSITIVE ADENYLATE CYCLASE: THE DOPAMINE RECEPTOR IN THE MAMMALIAN NERVOUS SYSTEM. (PH.D. DISSERTATION).
159484 04-01

ADIPOSE
EFFECT OF AN AMPHETAMINE DERIVATIVE IN RAT ADIPOSE TISSUE LIPOLYSIS AND GLYCEROL UTILIZATION IN VITRO.
166693 04-03

ADIPOSITY
FENFLURAMINE (PONDERAL) IN TREATMENT OF ADIPOSITY CAUSED BY NEUROLEPTICS.
166986 04-09

ADJUNCT
DPT AS AN ADJUNCT IN PSYCHOTHERAPY OF ALCOHOLICS.
160221 04-11

ADJUNCTIVE
EFFECTS OF METHAMPHETAMINE AND CHLORDIAZEPOXIDE ON SCHEDULE CONTROLLED AND ADJUNCTIVE LICKING IN THE RAT.
157156 04-04
THE DIFFERENTIATION OF OPERANT AND ADJUNCTIVE BEHAVIORS. (PH.D. DISSERTATION).
167237 04-04

ADJUSTMENT
SKIN CONDUCTANCE BASAL LEVEL AND REACTIVITY IN SCHIZOPHRENIA AS A FUNCTION OF CHRONICITY, PREMORBID ADJUSTMENT, DIAGNOSIS, AND MEDICATION.
154170 04-08
RELATIONSHIP OF CLINICAL AND DEMOGRAPHIC VARIABLES TO COMMUNITY ADJUSTMENT OF SCHIZOPHRENIC OUTPATIENTS ON CHEMOTHERAPY. (ED. D. DISSERTATION).
158779 04-08
PREMORBID ASOCIAL ADJUSTMENT AND RESPONSE TO PHENOTHIAZINE TREATMENT AMONG SCHIZOPHRENIC INPATIENTS.
164714 04-08

ADMINISTERED
EXTINCTION OF AVOIDANCE IN RATS: THE EFFECTS OF CHLORPROMAZINE AND METHYLPHENIDATE ADMINISTERED IN CONJUNCTION WITH FLOODING RESPONSE (PREVENTION).
152525 04-04
LOCALIZATION IN BRAIN PARTICULATE FRACTIONS OF NARCOTIC ANALGESIC DRUGS ADMINISTERED INTRACISTERNALLY TO RATS.
157185 04-03
ANIMAL MODELS FOR AN ENZYMIC BLOOD-BRAIN BARRIER MECHANISM FOR THERAPEUTICALLY ADMINISTERED L-DOPA.
159566 04-03
THE EFFECT OF FOCALLY ADMINISTERED DRUGS ON SELF-STIMULATION OF THE VENTRAL TEGMENTAL AREA IN RATS. (PH.D. DISSERTATION).
160896 04-04
EFFECTS OF CHRONICALLY ADMINISTERED L-DOPA IN NORMAL AND LESIONED CATS.
163767 04-03
TRANSFER OF STATE-DEPENDENT CONTROL OF DISCRIMINATIVE BEHAVIOUR BETWEEN SUBCUTANEOUSLY AND INTRAVENTRICULARLY ADMINISTERED NICOTINE AND SALINE.
163771 04-04
THE EFFECT OF IMIPRAMINE ADMINISTERED BEFORE AND DURING PREGNANCY ON LITTER SIZE IN THE RAT.
163772 04-03

ADMINISTRATION
THE EFFECT OF PROLONGED LITHIUM ADMINISTRATION ON ACTIVITY, REACTIVITY, AND ENDURANCE IN THE RAT.
150324 04-04
SYNAPTIC ALTERATIONS IN THE RABBIT HYPOTHALAMUS FOLLOWING LONG-TERM ADMINISTRATION OF HALOPERIDOL.
150398 04-05
VEHICLE AND ROUTE OF ADMINISTRATION AS PARAMETERS AFFECTING OPERANT BEHAVIORAL EFFECTS OF DELTA9-TETRAHYDROCANNABINOL.
150414 04-04
THE EFFECTS OF A SINGLE ADMINISTRATION OF ETIFOXINE ON SEVERAL PSYCHOLOGICAL TESTS.
150672 04-07
STUDY ON THE EFFECT OF A RESERPINE-LIKE SUBSTANCE (TETRABENAZINE) FOLLOWED BY THE ADMINISTRATION OF A TRICYCLIC ANTIDEPRESSANT (DESMETHYLIMIPRAMINE) ON NORMAL SUBJECTS.
151304 04-07
TOXIC ENCEPHALOPATHY FOLLOWING LONG-TERM ADMINISTRATION OF PHENMETRAZINE.
151376 04-15
CATECHOLAMINE CONCENTRATIONS IN DISCRETE AREAS OF THE RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
151629 04-03
ADMINISTRATION OF AMANTADINE TO PATIENTS ON OPTIMUM L-DOPA DOSAGE.
151691 04-11
ACTION OF CARBAMAZEPINE (TEGRETOL) AND APHENDIONE ON REACTIONS PROVOKED BY INTRAAMYGDALOID ADMINISTRATION OF CARBACHOLINE TO RABBITS.
151815 04-04
SYNAPTIC CHANGES IN THE RABBIT PALLIDUM FOLLOWING LONG-TERM HALOPERIDOL ADMINISTRATION.
152027 04-05
SYNAPTIC ALTERATIONS IN THE HYPOTHALAMUS OF THE RABBIT FOLLOWING LONG-TERM CHLORPROMAZINE ADMINISTRATION.
152028 04-05
THE IMPORTANCE OF DOSAGE IN ANTIPSYCHOTIC DRUG ADMINISTRATION -- A REVIEW OF DOSE-RESPONSE STUDIES.
153096 04-08
NEUROCHEMICAL TERATOLOGY: 5-HYDROXYINDOLE CONCENTRATIONS IN DISCRETE AREAS OF RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
156751 04-03
CHRONIC INTRAVENOUS DRUG ADMINISTRATION IN THE PIGEON.
156827 04-06
CHARACTERISTICS OF PENTAZOCINE DEPENDENCE IN HOSPITALIZED PATIENTS AFTER NALOXONE ADMINISTRATION.
157037 04-15
LABOR DIVISION OF RATS UNDER THE INFLUENCE OF PROLONGED ADMINISTRATION OF (-)DELTA9-TRANS-TETRAHYDROCANNABINOL.
157181 04-04
EFFECTS OF CHRONIC ADMINISTRATION OF BENZODIAZEPINES ON EPILEPTIC SEIZURES AND BRAIN ELECTRICAL ACTIVITY IN PAPIO-PAPIO.
158290 04-03
RESTORATION OF MORPHINE ANALGESIA IN MORPHINE TOLERANT RATS AFTER THE INTRAVENTRICULAR ADMINISTRATION OF 6-HYDROXYDOPAMINE.
158774 04-03
INTRAVENOUS DIAZEPAM ADMINISTRATION.
159472 04-17

EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF CANNABIS-SATIVA EXTRACT ON THE MOUSE KILLING BEHAVIOR OF RATS. 159568 04-04

METABOLISM AND DISTRIBUTION OF CANNABINOIDS IN RATS AFTER DIFFERENT METHODS OF ADMINISTRATION. 160198 04-03

EFFECTS OF REPEATED ADMINISTRATION OF DL-AMPHETAMINE AND METHAMPHETAMINE ON TOLERANCE TO HYPERACTIVITY. 162959 04-04

BEHAVIORAL AND BIOCHEMICAL EFFECTS OF CHRONIC ADMINISTRATION OF BROMIDE IN THE RAT. 163753 04-04

THE EFFECTS OF CHRONIC FENFLURAMINE ADMINISTRATION ON BEHAVIOUR AND BODY WEIGHT. 163759 04-04

STATE-DEPENDENT LEARNING PRODUCED BY POST TRIAL INTRATHORACIC ADMINISTRATION OF SODIUM PENTOBARBITAL. 163761 04-04

HALOPERIDOL IN THE TREATMENT OF NAUSEA AND VOMITING DUE TO CYTOTOXIC DRUG ADMINISTRATION. 164218 04-15

EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF DESMETHYLIMIPRAMINE ON THE CONTENT OF NOREPINEPHRINE AND OTHER MONOAMINES IN THE RAT BRAIN. 166027 04-03

MODIFICATION OF SEROTONIN METABOLISM IN RAT BRAIN AFTER ACUTE OR CHRONIC ADMINISTRATION OF MORPHINE. 166698 04-03

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: III. THE EFFECTS OF AMITRIPTYLINE. 166723 04-14

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: II. THE EFFECTS OF RESERPINE. 166724 04-14

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: I. METHODOLOGY AND THE EFFECTS OF PLACEBO. 166725 04-14

CHLORIMIPRAMINE: A DOUBLE-BLIND COMPARISON OF INTRAVENOUS VERSUS ORAL ADMINISTRATION IN DEPRESSED PATIENTS. 166729 04-09

ADOLESCENTS

UNTOWARD RESPONSES TO MEDICATION IN ADOLESCENTS. 149916 04-15

HALOPERIDOL AND CHLORPROMAZINE: A DOUBLE-BLIND CROSSOVER TRIAL AND CLINICAL STUDY IN CHILDREN AND ADOLESCENTS. 161661 04-11

ADRENAL

EFFECTS OF RESERPINE ON THE CONTENT AND PROPERTIES OF RAT ADRENAL MEDULLARY STORAGE VESICLES. 150580 04-03

ADRENAL AND STRIATAL TYROSINE HYDROXYLASE ACTIVITY AFTER METHAMPHETAMINE. 156644 04-03

INHIBITION OF MORPHINE INDUCED PITUITARY ADRENAL ACTIVATION BY DEXAMETHASONE IN THE FEMALE RAT (37506). 162049 04-03

ROLE OF ADRENAL HORMONES IN INCUBATION BEHAVIOR OF MALE RING DOVES (STREPTOPELIA-RISORIA). 162667 04-03

ADRENALECTOMIZED

THE EFFECTS OF HYPOTHALAMIC IMPLANTS OF ALDOSTERONE, ANGIOTENSIN II, CARBACOL, NOREPINEPHRINE, AND NACL ON WATER AND NACL INTAKE IN NORMAL AND ADRENALECTOMIZED RATS. 159391 04-04

ADRENERGIC

ACCUMULATION, STORAGE AND RELEASE OF ADRENERGIC NEURON BLOCKING AGENTS AND RELATED DRUGS BY HUMAN PLATELETS. 150316 04-03

EFFECTS OF BETA ADRENERGIC BLOCKADE WITH SOTALOL IN CHRONIC ANXIETY. 151162 04-10

INFLUENCE OF CHANGES IN ADRENERGIC AND CHOLINERGIC ACTIVITY UPON ACQUISITION OF OPERANT DISCRIMINATION IN ALBINO RATS. 154639 04-04

6-AMINODOPAMINE AND 6-HYDROXYDOPAMINE: SIMILAR DEGENERATIVE EFFECTS ON PERIPHERAL ADRENERGIC NERVES. (UNPUBLISHED PAPER). 156107 04-03

STERIC ASPECTS OF ADRENERGIC DRUGS XXII: RETENTION OF (_)- AND (-) 14C-NOREPINEPHRINE BY MOUSE HEART. 157302 04-01

THE EFFECTS OF CHANGES IN IONIC ENVIRONMENT AND MODIFICATION OF ADRENERGIC FUNCTION ON THE VASCULAR RESPONSES TO SYMPATHOMIMETIC AMINES. 158769 04-03

FURTHER EVIDENCE IN SUPPORT OF A COMMON ADRENERGIC MECHANISM FOR THE FACILITATORY ACTION ON LEARNING OF AMPHETAMINE AND NICOTINE IN RATS. 158772 04-04

THE REGULATION OF PINEAL SEROTONIN BY A BETA ADRENERGIC RECEPTOR. 159369 04-03

FURTHER STUDIES ON THE ADRENERGIC NEURON BLOCKING ACTIVITY OF SOME BETA-ADRENOCEPTOR ANTAGONISTS AND GUANETHIDINE. 161141 04-03

EFFECTS OF SOME CHOLINERGIC, ADRENERGIC AND SEROTONINERGIC COMPOUNDS, GLUTAMIC ACID AND GABA ON HIPPOCAMPAL SEIZURES. 161963 04-03

SLOW SYNAPTIC INHIBITION AND ADRENERGIC ANTAGONISM IN SYMPATHETIC GANGLION. (UNPUBLISHED PAPER) 162394 04-03

THE EFFECT OF LITHIUM ON ADRENERGIC FUNCTION IN DOG. 163695 04-03

ADRENERGIC RECEPTOR ROLES IN EPINEPHRINE REVERSAL BY CHLORPROMAZINE. (PH.D. DISSERTATION). 165680 04-03

EFFECTS OF NEUROHUMORAL AND ADRENERGIC AGENTS ON CYCLIC AMP LEVELS IN VARIOUS AREAS OF THE RAT BRAIN IN VITRO. (UNPUBLISHED PAPER). 165682 04-03

A COMPARISON OF THE EFFECTS OF SOTALOL AND OF THE ISOMERS OF PRACTOLOL ON ADRENERGIC NERVOUS ACTIVITY. 166789 04-03

ADULTERATED

CONCENTRATION INGESTION RELATIONS OF MORPHINE ADULTERATED FOOD AND MORPHINE SOLUTION. 150321 04-06

ADULTS

T3 ALONE IN DEPRESSED ADULTS. 155257 04-09

AFFECTIVE

LITHIUM AS A PROPHYLACTIC AGENT IN RECURRING AFFECTIVE DISORDERS. 156416 04-09

LITHIUM CARBONATE AND IMIPRAMINE IN PREVENTION OF AFFECTIVE EPISODES. 159778 04-09

ESTIMATION OF BRAIN AMINE METABOLISM IN AFFECTIVE ILLNESS: CEREBROSPINAL FLUID STUDIES UTILIZING PROBENECID. 164871 04-11

AFFINITY

SEROTONIN BINDING PROTEINS ISOLATED BY AFFINITY CHROMATOGRAPHY. (UNPUBLISHED PAPER). 158570 04-03

AFLATOXIN-B1

AFLATOXIN-B1 AND PHENOBARBITAL INDUCIBLE AFLATOXIN-DELTA2 HYDRATION BY RAT LIVER MICROSOMES. 152165 04-03

AFLATOXIN-DELTA2

AFLATOXIN-B1 AND PHENOBARBITAL INDUCIBLE AFLATOXIN-DELTA2 HYDRATION BY RAT LIVER MICROSOMES. 152165 04-03

AGED

OBSERVATIONS OF L-DOPA TREATMENT AND OF ITS SIDE-EFFECTS IN THE AGED. 160138 04-15

THE EFFECT OF GEROVITAL-H3 ON THE GROWTH RATE OF AGED MOUSE EMBRYO FIBROBLASTS AND ON THE PATHOGENESIS INDUCED BY A RNA C-TYPE VIRUS. 166387 04-03

AGGREGATION

HYPERTHERMIA AND THE AMPHETAMINE AGGREGATION PHENOMENON: ABSENCE OF A CAUSAL RELATION. 155909 04-03

AGGRESSION

THE EFFECTS OF INDUCED NAUSEA UPON SHOCK ELICITED AGGRESSION. 150264 04-04

THE EFFECTS OF BENZODIAZEPINES ON AGGRESSION: REDUCED OR INCREASED 150292 04-04

FENFLURAMINE: EFFECTS ON AGGRESSION. 152428 04-04

NEUROCHEMICAL AND BEHAVIORAL BASES OF ETHOLOGICAL AGGRESSION. 155242 04-03

CHEMICAL AND ELECTRICAL TREATMENT OF AGGRESSION. 155243 04-04

APOMORPHINE INDUCED AGGRESSION: CHARACTERISTICS, PHARMACOLOGICAL INTERVENTION, AND SITE OF ACTION. 155246 04-03

THE EFFECTS OF CHLORPROMAZINE AND D-AMPHETAMINE UPON SHOCK ELICITED AGGRESSION. 157148 04-04

THE EFFECTS OF BENZODIAZEPINES ON AGGRESSION: REDUCED OR INCREASED
158289 04-04

PHARMACOLOGIC TREATMENT OF AGGRESSION.
159398 04-11

DRUG-INDUCED AGGRESSION.
161343 04-04

AGGRESSIVE
THE AGGRESSIVE MONOAMINES.
152432 04-04

GENETIC PROGRAM OF BRAIN BIOGENIC AMINES AND AGGRESSIVE BEHAVIOR.
155244 04-03

BIOGENIC AMINES AND THEIR METABOLISM IN THE STUDY OF AGGRESSIVE BEHAVIOR IN RATS.
155248 04-04

ACTIVITY OF BENZODIAZEPINES ON AGGRESSIVE BEHAVIOR IN RATS AND MICE.
158287 04-04

EFFECTS OF LICL ON AGGRESSIVE BEHAVIOUR AND BRAIN AMINES IN MICE.
158498 04-04

THE LONG-TERM USE OF LITHIUM IN AGGRESSIVE PRISONERS.
161581 04-14

EFFECTS OF (-)DELTA9-TRANS-TETRAHYDROCANNABINOL AND ITS SELECTIVITY IN SEVERAL MODELS OF AGGRESSIVE BEHAVIOR.
161962 04-04

THE EFFECTS OF CHRONIC CANNABIS TREATMENT ON THE AGGRESSIVE BEHAVIOR AND BRAIN 5-HYDROXYTRYPTAMINE LEVELS OF RATS WITH DIFFERENT TEMPERAMENTS.
163778 04-04

AGGRESSIVENESS
II. THE EFFECTS OF SOME HALLUCINOGENS ON AGGRESSIVENESS OF MICE AND RATS.
150406 04-04

EFFECTS OF L-DOPA AND RESERPINE ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158495 04-04

EFFECTS OF L-DOPA AND DDC ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158496 04-04

AGING
EFFECT OF MAGNESIUM PEMOLINE AND METHYLPHENIDATE ON MEMORY IMPROVEMENT AND MOOD IN NORMAL AGING SUBJECTS.
153054 04-14

AGONISTIC
AGONISTIC PROPERTIES OF NARCOTIC ANALGESICS AND ANTAGONISTS ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR IN THE RAT AND THEIR REVERSAL BY NALOXONE.
160634 04-03

SOME AGONISTIC ACTIONS OF THE MORPHINE ANTAGONIST LEVALLORPHAN ON BEHAVIOR AND BRAIN MONOAMINES IN THE RAT.
163757 04-03

AGORAPHOBIA
THE MANAGEMENT OF SEVERE AGORAPHOBIA: A COMPARISON OF IPRONIAZID AND SYSTEMATIC DESENSITIZATION.
163751 04-10

AGRANULOCYTOSIS
THIORIDAZINE TOXICITY: AGRANULOCYTOSIS AND HEPATITIS WITH ENCEPHALOPATHY.
150843 04-15

TREATMENT OF PSYCHOSIS SUBSEQUENT TO PHENOTHIAZINE INDUCED AGRANULOCYTOSIS.
161582 04-14

AHR-2277
AHR-2277: A NEW MAJOR NEUROLEPTIC WITH MINIMAL NEUROLOGICAL EFFECTS.
150643 04-08

AIB
INSULIN STIMULATION OF AIB TRANSPORT IN RAT THYMOCYTES. (UNPUBLISHED PAPER).
156869 04-03

AKATHISIA
THE THERAPEUTIC USE OF DIAZEPAM FOR AKATHISIA.
163333 04-08

AKINETON
STUDY OF THE DELAYED FORM OF A SYNTHETIC ANTIPARKINSONIAN AGENT: AKINETON.
157233 04-09

ALANINE
INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE.
150583 04-03

ALBINO
INFLUENCE OF CHANGES IN ADRENERGIC AND CHOLINERGIC ACTIVITY UPON ACQUISITION OF OPERANT DISCRIMINATION IN ALBINO RATS.
154639 04-04

THE EFFECT OF CHLORPROMAZINE ON THE PEAK SHIFT IN THE ALBINO RAT.
157084 04-04

ALCOHOL
CLINICAL AND EXPERIMENTAL STUDY OF THE ALCOHOL - THIOPROPERAZINE COMBINATION.
150623 04-17

PHARMACOLOGICAL STUDIES CONCERNING THE SIMULTANEOUS USE OF ELENIUM AND ETHYL ALCOHOL.
151385 04-03

AVERSIVE CONDITIONING BY PSYCHOACTIVE DRUGS: EFFECTS OF MORPHINE, ALCOHOL AND CHLORDIAZEPOXIDE.
153107 04-04

INTAKE OF DIAZEPAM AND HASHISH BY ALCOHOL PREFERRING RATS DEPRIVED OF ALCOHOL.
153571 04-03

PYRAZOLE DIURESIS IN RATS WITH AND WITHOUT ALCOHOL.
154613 04-03

DRUG-INDUCED ATTENUATION OF ALCOHOL CONSUMPTION: A REVIEW AND EVALUATION OF CLAIMED, POTENTIAL OR CURRENT THERAPIES.
154690 04-11

THE EFFECTS OF DOXEPIN, ALONE AND TOGETHER WITH ALCOHOL, IN RELATION TO DRIVING SAFETY.
155841 04-14

ALCOHOL HISTORY IN DRUG TREATMENT.
156740 04-11

BENZODIAZEPINES IN THE TREATMENT OF ALCOHOL WITHDRAWAL STATES.
158298 04-11

SOME ISSUES OF CONTROL IN ALCOHOL RESEARCH ON ANIMAL BEHAVIOR.
159068 04-05

CANNABIS AND ALCOHOL: EFFECTS ON ESTIMATION OF TIME AND DISTANCE.
163777 04-14

ALCOHOLIC
THE EXCRETION OF NOREPINEPHRINE AND DOPAMINE ALCOHOLIC METABOLITES AFTER 6-HYDROXYDOPAMINE. (UNPUBLISHED PAPER).
151643 04-03

DIBENCOZIDE AND ALCOHOLIC MENTAL DETERIORATION.
161279 04-11

DRUG TREATMENT OF ANXIETY AND DEPRESSION IN DETOXIFIED ALCOHOLIC PATIENTS.
162170 04-11

ALCOHOLICS
DPT AS AN ADJUNCT IN PSYCHOTHERAPY OF ALCOHOLICS.
160221 04-11

ALCOHOLISM
TIOTIXENE AND THIORIDAZINE IN ALCOHOLISM TREATMENT.
165371 04-11

ALDEHYDE
INHIBITION OF BOVINE BRAIN ALDEHYDE REDUCTASE BY ANTICONVULSANT COMPOUNDS IN VITRO.
166699 04-03

ALDOSTERONE
THE EFFECTS OF HYPOTHALAMIC IMPLANTS OF ALDOSTERONE, ANGIOTENSIN II, CARBACOL, NOREPINEPHRINE, AND NACL ON WATER AND NACL INTAKE IN NORMAL AND ADRENALECTOMIZED RATS.
159391 04-04

ALKALOIDS
CACTUS ALKALOIDS XV: BETA-PHENETHYLAMINE DERIVATIVES FROM CORYPHANTHA-MACROMERIS VAR. RUNYONII.
150411 04-01

CACTUS ALKALOIDS XVI: ISOLATION AND IDENTIFICATION OF ALKALOIDS IN CORYPHANTHA-RAMILLOSA.
150412 04-01

DOPAMINE DERIVED TETRAHYDROISOQUINOLINE ALKALOIDS -- INHIBITORS OF NEUROAMINE METABOLISM.
160546 04-03

ON ALKALOIDS. XXV. MINOR ALKALOIDS OF POPPY CAPSULES.
167017 04-01

ALKYL
NEW COMPOUNDS: SYNTHESIS OF ALKYL ESTERS OF D,L-DOPA.
150417 04-01

ALL-NIGHT
CLINICAL PHARMACOLOGY OF SLEEP: A CRITICAL REVIEW OF ALL-NIGHT ELECTROENCEPHALOGRAPHIC STUDIES.
166734 04-08

ALLERGIC
THE RELEVANCE OF IMMUNOLOGIC STUDIES ON EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) TO CLINICAL INVESTIGATIONS ON MULTIPLE SCLEROSIS. (UNPUBLISHED PAPER).
152545 04-03

ALLERGY
DRUG ALLERGY TO THIOXANTHENE, MANIFESTED BY THE MORPHOLOGICAL PICTURE OF ERYTHEMA EXSUDATIVUM MULTIFORME, AS A RESULT OF TAKING CLOPENTHIXOL.
152089 04-15

ALLEVIATION
THIORIDAZINE: ALLEVIATION OF THE MIXED ANXIETY DEPRESSIVE PSYCHONEUROTIC STATE.
159067 04-14

ALPHA-ADRENERGIC
THE EFFECT OF SOME SUBSTANCES OF THE PHENOTHIAZINE SERIES AND OF ALPHA-ADRENERGIC BLOCKING AGENTS ON SPINAL CORD ACTIVITY UNDER CONDITIONS OF DISRUPTION OF INHIBITORY MECHANISMS BY TETANUS TOXIN.
162921 04-03

THE EFFECT OF ALPHA-ADRENERGIC AND BETA-ADRENERGIC ANTAGONISTS ON THE SELF-STIMULATION PHENOMENON.
166787 04-04

ALPHA-ADRENOCEPTORS
ON THE QUESTION OF SUBCLASSIFICATION OF ALPHA-ADRENOCEPTORS.
161144 04-03

ALPHA-AMANITIN
THE EFFECT OF ALPHA-AMANITIN ON PASSIVE AND ACTIVE AVOIDANCE ACQUISITION IN MICE.
157154 04-04

ALPHA-AMINOISOBUTYRIC
INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE.
150583 04-03

ALPHA-CHYMOTRYPSIN
ENHANCEMENT OF BRAIN L-DOPA CONCENTRATION WITH ALPHA-CHYMOTRYPSIN.
152870 04-03

ALPHA-METHYL-P-TYROSINE
DIFFERENTIAL EFFECTS OF RESERPINE AND ALPHA-METHYL-P-TYROSINE ON NOREPINEPHRINE AND DOPAMINE INDUCED BEHAVIORAL ACTIVITY.
162277 04-04

EFFECTS OF ALPHA-METHYL-P-TYROSINE ON MORPHINE DEPENDENCE.
163776 04-03

EFFECT OF LITHIUM CARBONATE AND ALPHA-METHYL-P-TYROSINE ON AUDIOGENIC SEIZURE INTENSITY.
163803 04-03

ALPHA-METHYLDOPA
ANTAGONISTIC ACTIONS OF ALPHA-METHYLNORADRENALINE DERIVED FROM ALPHA-METHYLDOPA.
156803 04-03

ALPHA-METHYLNORADRENALINE
ANTAGONISTIC ACTIONS OF ALPHA-METHYLNORADRENALINE DERIVED FROM ALPHA-METHYLDOPA.
156803 04-03

ALPHA-METHYLTYROSINE
ENHANCED APPETITIVE DISCRIMINATION LEARNING IN RATS TREATED WITH ALPHA-METHYLTYROSINE.
150320 04-04

BLOCKING EFFECT OF ALPHA-METHYLTYROSINE ON AMPHETAMINE BASED REINFORCEMENT.
151630 04-04

ALPHA-METHYLTYROSINE TO PREVENT SELF-ADMINISTRATION OF MORPHINE AND AMPHETAMINE.
152213 04-04

BEHAVIORAL AND BIOCHEMICAL EFFECTS OF ALPHA-METHYLTYROSINE IN CATS.
157144 04-04

EFFECTS OF ALPHA-METHYLTYROSINE ON REM SLEEP AND BRAIN AMINE LEVELS IN THE CAT.
157497 04-03

MORPHINE INDUCED SACCHARIN AVERSION IN ALPHA-METHYLTYROSINE PRETREATED RATS.
162279 04-03

DISSOCIATION OF EXCITATORY AND HYPERPYREXIC EFFECTS OF LSD IN RATS TREATED WITH ALPHA-METHYLTYROSINE.
166732 04-03

ALPHA-RECEPTORS
THE CENTRAL ACTION OF ANTIHYPERTENSIVE DRUGS, MEDIATED VIA CENTRAL ALPHA-RECEPTORS.
151626 04-13

ALTERATION
ALTERATION OF SEXUAL BEHAVIOR AND SEX ACCESSORY GLANDS BY P-CHLOROPHENYLALANINE AND TESTOSTERONE.
150422 04-04

ALTERATION OF CORTICAL AND RETICULAR ACETYLCHOLINE RELEASE BY ETHANOL IN VIVO.
158054 04-03

ALTERATION OF ETHANOL INDUCED CNS DEPRESSION: INEFFECTIVENESS OF DRUGS THAT MODIFY CHOLINERGIC TRANSMISSION. (UNPUBLISHED PAPER).
158058 04-04

THE ROLE OF BIOGENIC AMINES IN THE RESERPINE INDUCED ALTERATION OF MINIMAL ELECTROSHOCK SEIZURE THRESHOLDS IN THE MOUSE.
160639 04-03

ALTERATIONS
SYNAPTIC ALTERATIONS IN THE RABBIT HYPOTHALAMUS FOLLOWING LONG-TERM ADMINISTRATION OF HALOPERIDOL.
150398 04-05

SYNAPTIC ALTERATIONS IN THE HYPOTHALAMUS OF THE RABBIT FOLLOWING LONG-TERM CHLORPROMAZINE ADMINISTRATION.
152028 04-05

AMANTADINE
THE EFFECT OF AMANTADINE AND (_)- AMPHETAMINE ON MOTILITY IN RATS AFTER INHIBITION OF MONOAMINE SYNTHESIS AND STORAGE.
150354 04-04

SEQUENTIAL TRIAL UPON THE AWAKENING EFFECT OF AMANTADINE AFTER KETAMINE ANESTHESIA.
150833 04-13

ADMINISTRATION OF AMANTADINE TO PATIENTS ON OPTIMUM L-DOPA DOSAGE.
151690 04-11

COMPARISON OF AMANTADINE, ORPHENADRINE, AND PLACEBO IN THE CONTROL OF PHENOTHIAZINE INDUCED PARKINSONISM.
153122 04-15

EFFECTS OF AMANTADINE, AMPHETAMINE AND APOMORPHINE ON THE LOCOMOTOR ACTIVITY IN RATS.
156752 04-04

BLOCKADE OF THE CENTRAL EFFECTS OF D-AMPHETAMINE SULFATE BY AMANTADINE HYDROCHLORIDE.
156819 04-03

EFFECT OF AMANTADINE ON SEROTONIN METABOLISM IN RAT BRAIN.
158506 04-03

A CONTROLLED STUDY OF THE CLINICAL EFFECTS OF AMANTADINE HYDROCHLORIDE (SYMMETREL).
160644 04-11

COLOURED LILLIPUTIAN HALLUCINATIONS WITH AMANTADINE.
163694 04-15

AMBULATORY
LITHIUM CARBONATE IN THE AMBULATORY, CHRONICALLY PSYCHOTIC PATIENT.
150347 04-08

PRELIMINARY REPORT TREATMENT WITH RO-5-3350 ON AMBULATORY NEUROTIC PATIENTS.
151947 04-07

TREATMENT OF AMBULATORY NEUROTIC PATIENTS WITH WY-4036, JAKARTA, INDONESIA.
152342 04-10

AMINE
BIOGENIC AMINE DEPLETING EFFECTS OF BENZIMIDAZOLE 5(6) DL-ALANINE.
150315 04-03

COMPARISON OF THE BEHAVIORAL DEPRESSANT EFFECTS OF BIOGENIC AMINE DEPLETING AND NEUROLEPTIC AGENTS FOLLOWING VARIOUS 6-HYDROXYDOPAMINE TREATMENTS.
157140 04-04

EFFECTS OF ALPHA-METHYLTYROSINE ON REM SLEEP AND BRAIN AMINE LEVELS IN THE CAT.
157497 04-03

INVOLVEMENT OF BIOGENIC AMINES IN MEMORY FORMATION: THE CENTRAL NERVOUS SYSTEM INDOLE AMINE INVOLVEMENT.
162272 04-03

ESTIMATION OF BRAIN AMINE METABOLISM IN AFFECTIVE ILLNESS: CEREBROSPINAL FLUID STUDIES UTILIZING PROBENECID.
164871 04-11

BRAIN AMINE RELEASE DURING SUPPRESSED BEHAVIOR.
166530 04-03

AMINES
COMPARATIVE DATA FROM A STUDY OF THE METABOLISM OF BIOGENIC AMINES OF EPILEPTIC PATIENTS IN A PSYCHOTIC STATE.
151803 04-13

GENETIC PROGRAM OF BRAIN BIOGENIC AMINES AND AGGRESSIVE BEHAVIOR.
155244 04-03

BIOGENIC AMINES AND THEIR METABOLISM IN THE STUDY OF AGGRESSIVE BEHAVIOR IN RATS.
155248 04-04

POTENTIATING MECHANISM BY OUABAIN ON CONTRACTIONS OF GUINEA-PIG VAS-DEFERENS TO 5-HT AND OTHER AMINES.
158475 04-03

EFFECTS OF LICL ON AGGRESSIVE BEHAVIOUR AND BRAIN AMINES IN MICE.
158498 04-04

THE EFFECTS OF CHANGES IN IONIC ENVIRONMENT AND MODIFICATION OF ADRENERGIC FUNCTION ON THE VASCULAR RESPONSES TO SYMPATHOMIMETIC AMINES.
158769 04-03

THE ROLE OF BIOGENIC AMINES IN THE RESERPINE INDUCED ALTERATION OF MINIMAL ELECTROSHOCK SEIZURE THRESHOLDS IN THE MOUSE. 160639 04-03
D-LYSERGIC ACID DIETHYLAMIDE (LSD) -- EFFECT ON BIOGENIC AMINES EXCRETION IN MAN. 160802 04-13
INVOLVEMENT OF BIOGENIC AMINES IN MEMORY FORMATION: THE CENTRAL NERVOUS SYSTEM INDOLE AMINE INVOLVEMENT. 162272 04-03
SOME EFFECTS OF THE HALLUCINOGENIC DRUG 2,5 DIMETHOXY-4-METHYLAMPHETAMINE ON THE METABOLISM OF BIOGENIC AMINES IN THE RAT BRAIN. 163749 04-03
BRAIN BIOGENIC AMINES: DEPLETION BY CHRONIC DIELDRIN EXPOSURE. 166788 04-05
NEW INVESTIGATIONS INTO BIOGENIC AMINES (CEREBRAL OR CELLULAR LOCALIZATION, INFLUENCE OF VARIOUS CHEMICAL FACTORS). 167085 04-03

AMINO
SIMULTANEOUS MEASUREMENT OF TYROSINE AND TRYPTOPHAN HYDROXYLASE ACTIVITIES IN BRAIN IN VIVO USING AN INHIBITOR OF THE AROMATIC AMINO ACID DECARBOXYLASE. 150402 04-03
EFFECT OF PENTOBARBITAL ON AMINO ACID AND UREA FLUX IN THE ISOLATED DOG BRAIN. 151733 04-03
THE EFFECT OF HEXAFLUORODIETHYL ETHER (FLUROTHYL) ON THE METABOLISM OF RAT BRAIN AMINO ACIDS LABELLED BY (U-14C)GLUCOSE. 160767 04-03

AMITRIPTYLINE
A STUDY OF THE TREATMENT OF REACTIVE AND NEUROTIC DEPRESSIONS BY A COMBINATION OF AMITRIPTYLINE AND PERPHENAZINE. 150255 04-09
EFFECTS OF LITHIUM AND AMITRIPTYLINE THERAPY ON SOMATOSENSORY EVOKED RESPONSE EXCITABILITY MEASUREMENTS. 153101 04-13
CLINICAL RESPONSE TO AMITRIPTYLINE AND CHLORDIAZEPOXIDE AMITRIPTYLINE (LIMBITROL) IN ANXIETY DEPRESSIVE STATES: A DOUBLE-BLIND STUDY. 155887 04-10
METABOLISM OF AMITRIPTYLINE, NORTRIPTYLINE, IMIPRAMINE AND DESIPRAMINE TO YIELD HYDROXYLAMINES. 156762 04-01
DOUBLE-BLIND TEST OF THREE ANTIDEPRESSANTS. SECOND COMMUNICATION: CLINICAL COMPARISON OF NOXIPTILINE, NOR-NOXIPTILINE AND AMITRIPTYLINE WITH THE AMP SYSTEM. 156849 04-09
UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE. 158771 04-03
TRYPTOPHAN AND AMITRIPTYLINE IN THE TREATMENT OF DEPRESSION: A DOUBLE-BLIND STUDY. 161386 04-09
THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: III. THE EFFECTS OF AMITRIPTYLINE. 166723 04-14
CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE: STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER). 166960 04-09

AMMONIA
INHIBITION OF BRAIN GLUTAMATE DEHYDROGENASE BY A METABOLITE OF CYCLOHEXIMIDE AND ITS RELEVANCE FOR THE MECHANISM OF AMMONIA FORMATION IN BRAIN SLICES. (UNPUBLISHED PAPER). 151650 04-03

AMNESIA
ATTENUATION OF HYPOTHERMIC RETROGRADE AMNESIA PRODUCED BY PHARMACOLOGIC BLOCKAGE OF BRAIN SEIZURES. 157125 04-04

AMOBARBITAL
ELIMINATION KINETICS OF AMOBARBITAL IN MOTHERS AND THEIR NEWBORN INFANTS. 151163 04-13

AMP
EFFECTS OF MORPHINE ON CATECHOLAMINE TURNOVER, CYCLIC 3,5 AMP CONCENTRATIONS AND TYROSINE HYDROXYLASE ACTIVITY IN RAT TISSUES. (UNPUBLISHED PAPER). 152549 04-03
MODIFICATION OF THE CNS CYCLIC AMP RESPONSE BY DRUGS. 152664 04-03
DEVELOPMENT AND CHARACTERISTICS OF THE HISTAMINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RABBIT CEREBRAL CORTEX. (UNPUBLISHED PAPER). 154372 04-03
THE EFFECT OF TRIVASTAL, HALOPERIDOL AND DIBUTYRYL CYCLIC AMP ON (14C)DOPAMINE SYNTHESIS IN RAT STRIATUM. 156766 04-03
DOUBLE-BLIND TEST OF THREE ANTIDEPRESSANTS. SECOND COMMUNICATION: CLINICAL COMPARISON OF NOXIPTILINE, NOR-NOXIPTILINE AND AMITRIPTYLINE WITH THE AMP SYSTEM. 156849 04-09
EFFECT OF XANTHINOL NICOTINATE ON METABOLISM OF BRAIN CYCLIC AMP AND METABOLISM IN ELECTRICALLY STIMULATED CEREBRAL TISSUE. 158511 04-03
INHIBITORY EFFECT OF METHYLXANTHINES ON THE ADENOSINE STIMULATED FORMATION OF CYCLIC AMP IN BRAIN SLICES. 158512 04-03
URINARY CYCLIC AMP IN PERIODIC CATATONIA. 160826 04-13
COMPARISON OF EFFECTS OF NORADRENALINE AND HISTAMINE WITH CYCLIC AMP ON BRAIN STEM NEURONES. 162893 04-03
THE BEHAVIORAL EFFECTS OF DIBUTYRYL CYCLIC AMP IN MICE. 163696 04-04
EFFECTS OF NEUROHUMORAL AND ADRENERGIC AGENTS ON CYCLIC AMP LEVELS IN VARIOUS AREAS OF THE RAT BRAIN IN VITRO. (UNPUBLISHED PAPER). 165682 04-03
INFLUENCE OF AMPHETAMINES, PROTRIPTYLINE AND PARGYLINE ON THE TIME COURSE OF THE NOREPINEPHRINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RAT BRAIN. 165790 04-03

AMPHETAMINE
TOLERANCE IN THE DEPRESSION OF INTAKE WHEN AMPHETAMINE IS ADDED TO THE RATS FOOD. 150353 04-03
THE EFFECT OF AMANTADINE AND (_)- AMPHETAMINE ON MOTILITY IN RATS AFTER INHIBITION OF MONOAMINE SYNTHESIS AND STORAGE. 150354 04-04
BLOCKING EFFECT OF ALPHA-METHYLTYROSINE ON AMPHETAMINE BASED REINFORCEMENT. 151630 04-04
ALPHA-METHYLTYROSINE TO PREVENT SELF-ADMINISTRATION OF MORPHINE AND AMPHETAMINE. 152213 04-04
SCRATCHING RESPONSE INDUCED IN MICE BY MESCALINE AND RELATED AMPHETAMINE DERIVATIVES. 152431 04-04
MARIJUANA AND AMPHETAMINE: THE QUESTION OF INTERACTION. 152715 04-14
GILLES-DE-LA-TOURETTES DISEASE AND MINIMAL BRAIN DYSFUNCTION: AMPHETAMINE ISOMERS REVEAL CATECHOLAMINE CORRELATES IN AN AFFECTED PATIENT. 153097 04-11
DRUG-INDUCED REINSTATEMENT OF AMPHETAMINE SELF-ADMINISTRATION BEHAVIOUR IN MONKEYS. 154210 04-04
METABOLISM OF AMPHETAMINE AND BETA,BETA DIFLUOROAMPHETAMINE IN PHENOBARBITAL TREATED RATS. 155493 04-03
A NOTE OF THE EFFECT OF (_)- AND (-)- AMPHETAMINE ON LIPID METABOLISM. 155907 04-03
HYPERTHERMIA AND THE AMPHETAMINE AGGREGATION PHENOMENON: ABSENCE OF A CAUSAL RELATION. 155909 04-03
EFFECTS OF AMANTADINE, AMPHETAMINE AND APOMORPHINE ON THE LOCOMOTOR ACTIVITY IN RATS. 156752 04-04
DIFFERENTIAL EFFECTS OF AMPHETAMINE, FENFLURAMINE AND NORFENFLURAMINE STEREOISOMERS ON THE INCREASE OF STRIATUM HOMOVANILLIC ACID IN RATS. 156759 04-03
THE IDENTIFICATION, PROPERTIES AND ANALYSIS OF N-HYDROXYAMPHETAMINE -- A METABOLITE OF AMPHETAMINE. 156761 04-01
DEUTERIUM SUBSTITUTED AMPHETAMINE AS AN INTERNAL STANDARD IN A GC/MS ASSAY FOR AMPHETAMINE. 156906 04-06
LITHIUM AND AMPHETAMINE: OPPOSITE EFFECTS ON THRESHOLD OF INTRACRANIAL REINFORCEMENT. 157045 04-04
EXPLORATORY ACTIVITY: GENETIC ANALYSIS OF ITS MODIFICATION BY SCOPOLAMINE AND AMPHETAMINE. 157099 04-04
DOPAMINERGIC NEURONS: EFFECT OF ANTIPSYCHOTIC DRUGS AND AMPHETAMINE ON SINGLE CELL ACTIVITY. 157111 04-03
EFFECTS OF AMPHETAMINE AND ITS HYDROXYLATED METABOLITES ON CENTRAL NORADRENERGIC MECHANISMS. 157118 04-03

THE EXPERIMENTAL REPRODUCTION OF AMPHETAMINE PSYCHOSIS.
157345 04-12
EFFECTS OF CHLORDIAZEPOXIDE ALONE AND IN COMBINATION WITH AMPHETAMINE ON ANIMAL AND HUMAN BEHAVIOR.
158283 04-14
NEW APPARATUS FOR LEARNING EXPERIMENT AND ITS APPLICATION - THE EFFECT OF CHLORPROMAZINE, RESERPINE AND AMPHETAMINE.
158493 04-04
FURTHER EVIDENCE IN SUPPORT OF A COMMON ADRENERGIC MECHANISM FOR THE FACILITATORY ACTION ON LEARNING OF AMPHETAMINE AND NICOTINE IN RATS.
158772 04-04
EFFECTS OF DIETHYLDITHIOCARBAMATE AND ETHANOL ON THE IN VIVO METABOLISM AND PHARMACOKINETICS OF AMPHETAMINE IN THE RAT.
158775 04-03
AMPHETAMINE AS A MODEL FOR HYPERACTIVITY IN THE RAT.
160583 04-04
UPTAKE OF (3H)- CATECHOLAMINES BY HOMOGENATES OF RAT CORPUS-STRIATUM AND CEREBRAL CORTEX: EFFECTS OF AMPHETAMINE ANALOGUES.
160637 04-03
EFFECT OF AMPHETAMINE ON THE SWIMMING ENDURANCE OF RATS.
160641 04-04
IN VIVO EFFECTS OF AMPHETAMINE ON METABOLITES AND METABOLIC RATE IN BRAIN.
161379 04-03
COMPARISON OF EFFECTS OF L-DOPA, AMPHETAMINE AND APOMORPHINE ON FIRING RATE OF RAT DOPAMINERGIC NEURONES.
162974 04-03
APPLICATION OF QUANTITATIVE GC-MASS SPECTROMETRY TO STUDY OF PHARMACOKINETICS OF AMPHETAMINE AND PHENTERMINE.
163188 04-03
SELF-ADMINISTRATION OF OPTICAL ISOMERS OF AMPHETAMINE AND METHYLAMPHETAMINE BY RATS.
163766 04-04
INTERACTIONS BETWEEN AMPHETAMINE AND SEROTONERGIC AGENTS ON CATS ISOLATED CEREBRAL CORTEX.
163780 04-03
EFFECT OF SOME LIPID SOLUBLE DERIVATIVES OF AMPHETAMINE ON AMPHETAMINE LEVELS IN RAT BRAIN.
163804 04-03
EFFECTS OF AMPHETAMINE AND BARBITURATE ON BODY EXPERIENCE.
165416 04-14
EVIDENCE FOR THE BIOGENIC FORMATION OF AMPHETAMINE DERIVATIVES FROM COMPONENTS OF NUTMEG.
165997 04-01
PUNISHMENT OF SACCHARIN DRINKING BY AMPHETAMINE IN RATS AND ITS REVERSAL BY CHLORDIAZEPOXIDE.
166165 04-04
EFFECT OF AN AMPHETAMINE DERIVATIVE IN RAT ADIPOSE TISSUE LIPOLYSIS AND GLYCEROL UTILIZATION IN VITRO.
166693 04-03

AMPHETAMINE-INDUCED
AMPHETAMINE-INDUCED DISRUPTION OF TEMPORAL DISCRIMINATION BY RESPONSE DISINHIBITION.
163737 04-03
AMPHETAMINE-INDUCED INHIBITION OF TYROSINE HYDROXYLATION IN HOMOGENATES OF RAT CORPUS-STRIATUM.
166000 04-03

AMPHETAMINES
COMPARATIVE EFFECTS OF STEREOISOMERS OF HALLUCINOGENIC AMPHETAMINES.
162292 04-03
INFLUENCE OF AMPHETAMINES, PROTRIPTYLINE AND PARGYLINE ON THE TIME COURSE OF THE NOREPINEPHRINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RAT BRAIN.
165790 04-03
METABOLISM OF AMPHETAMINES. IDENTIFICATION OF N-OXYGENATED PRODUCTS BY GAS CHROMATOGRAPHY AND MASS SPECTROMETRY.
165998 04-06
ANALYSIS OF AMPHETAMINES AND OTHER PSYCHOACTIVE DRUGS.
166901 04-06

AMPLITUDE
THE INFLUENCE OF METHAMPHETAMINE AND DIAZEPAM ON THE AMPLITUDE CHANGES OF THE ACHILLES TENDON AND HOFFMANN REFLEX DURING A MENTAL TASK.
152074 04-14
NATURE AND AMPLITUDE OF THE EFFECTS OF ACETOXYCYCLOHEXIMIDE ON THE RETENTION OF AN INSTRUMENTAL TASK IN MICE.
161123 04-04

AMYGDALOID
ELECTROPHYSIOLOGICAL ANALYSIS OF DIENCEPHALO - AMYGDALOID INTERRELATIONS.
152101 04-03

AMYTROPHIC
SECURININE: A CENTRAL NERVOUS SYSTEM STIMULANT IS USED IN THE TREATMENT OF AMYTROPHIC LATERAL SCLEROSIS.
150425 04-11

ANAESTHETIZED
THE CARDIOVASCULAR EFFECTS OF APOMORPHINE IN THE ANAESTHETIZED RAT.
156818 04-03

ANALGESIA
EFFECTS OF LITHIUM ON THE ANALGESIA CAUSED BY MORPHINE AND TWO ANTIDEPRESSANTS IN MICE.
151908 04-03
MEASUREMENT OF ANALGESIA USING A SPATIAL PREFERENCE TEST IN THE RAT.
153569 04-04
RESTORATION OF MORPHINE ANALGESIA IN MORPHINE TOLERANT RATS AFTER THE INTRAVENTRICULAR ADMINISTRATION OF 6-HYDROXYDOPAMINE.
158774 04-03

ANALGESIC
DETERMINATION OF TOTAL SALICYLATES, PHENACETIN AND/OR TOTAL N-ACETYL-P-AMINOPHENOL, AND CAFFEINE IN BIOLOGICAL SAMPLES AND ANALGESIC FORMULATIONS.
150410 04-01
LOCALIZATION IN BRAIN PARTICULATE FRACTIONS OF NARCOTIC ANALGESIC DRUGS ADMINISTERED INTRACISTERNALLY TO RATS.
157185 04-03
SERUM AND BRAIN CONCENTRATIONS OF PENTAZOCINE IN RELATION TO ANALGESIC ACTIVITY IN MICE.
167018 04-03

ANALGESICS
IS THE UPTAKE OF NARCOTIC ANALGESICS BY CEREBRAL CORTICAL SLICES MEDIATED IN PART BY ACTIVE TRANSPORT?
151631 04-03
NARCOTIC ANALGESICS AND THE REGULATION OF NEURONAL CATECHOLAMINE STORES. (UNPUBLISHED PAPER).
152199 04-03
NARCOTIC ANALGESICS. (UNPUBLISHED PAPER).
152542 04-17
BLOCKADE BY BUFOTENIDINE OF THE SEROTONIN AND NARCOTIC ANALGESICS INDUCED CONTRACTION OF DOG INTESTINE IN VIVO.
156825 04-03
IN VITRO INHIBITORY EFFECTS OF NARCOTIC ANALGESICS AND OTHER PSYCHOTROPIC DRUGS ON THE ACTIVE UPTAKE OF NOREPINEPHRINE IN MOUSE BRAIN TISSUE.
157063 04-03
THE EFFECTS OF ANALGESICS AND NEUROLEPTICS ON THE RELEASE OF MONOAMINE METABOLITES INTO THE LATERAL CEREBRAL VENTRICLE OF RABBIT.
158482 04-03
AGONISTIC PROPERTIES OF NARCOTIC ANALGESICS AND ANTAGONISTS ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR IN THE RAT AND THEIR REVERSAL BY NALOXONE.
160634 04-03

ANALOGS
BIOCHEMICAL AND PHARMACOLOGICAL STUDY OF 2,5 DIMETHOXY-4-METHYLAMPHETAMINE (DOM, STP) AND ANALOGS. (PH.D. DISSERTATION).
159826 04-03
HYPERGLYCEMIC MECHANISMS OF CERTAIN PHENOTHIAZINE ANALOGS. (PH.D. DISSERTATION).
159828 04-03
EFFECT OF TWO ACTH ANALOGS ON NORADRENALINE METABOLISM IN RAT BRAIN.
162895 04-03

ANALOGUES
MICROIONTOPHORETIC STUDIES OF CONFORMATIONALLY RESTRICTED ANALOGUES OF GAMMA-AMINOBUTYRATE OF RAT HIPPOCAMPAL NEURONS. (UNPUBLISHED PAPER).
151435 04-03
UPTAKE OF (3H)- CATECHOLAMINES BY HOMOGENATES OF RAT CORPUS-STRIATUM AND CEREBRAL CORTEX: EFFECTS OF AMPHETAMINE ANALOGUES.
160637 04-03
DIFFERENTIAL EFFECTS ON MOUSE BRAIN CATECHOLAMINE TURNOVER OF CHLORPROMAZINE, TRIFLUOPERAZINE AND CLOSELY-RELATED NOT-TRANQUILLIZING ANALOGUES.
161145 04-13
ANALOGUES OF GAMMA-AMINOBUTYRATE ON RAT HIPPOCAMPAL NEURONES.
162975 04-03
EFFECTS OF MORPHINE AND ANALOGUES ON CELL METABOLISM.
164858 04-03

ANALYSES
DRUG RESPONSES IN DIFFERENT ANXIETY STATES UNDER BENZODIAZEPINE TREATMENT. SOME MULTIVARIATE ANALYSES FOR THE EVALUATION OF RATING SCALE FOR DEPRESSION SCORES.
158285 04-14

ANALYSIS
ANALYSIS OF CLINICAL EXPERIENCES OBTAINED IN 100 CASES OF ACUTE APAURINE DIAZEPAM INTOXICATION.
152085 04-15

ELECTROPHYSIOLOGICAL ANALYSIS OF DIENCEPHALO - AMYGDALOID INTERRELATIONS.
152101 04-03

THE IDENTIFICATION, PROPERTIES AND ANALYSIS OF N-HYDROXYAMPHETAMINE -- A METABOLITE OF AMPHETAMINE.
156761 04-01

EXPLORATORY ACTIVITY: GENETIC ANALYSIS OF ITS MODIFICATION BY SCOPOLAMINE AND AMPHETAMINE.
157099 04-04

FACTORS INVOLVED IN ETHANOL NARCOSIS: ANALYSIS IN MICE OF THREE INBRED STRAINS.
159567 04-03

ANALYSIS OF CANNABIS METABOLITES IN BIOLOGICAL FLUIDS.
160748 04-03

ANALYSIS OF THE EFFECTS OF APOMORPHINE AND BULBOCAPNINE IN RELATION TO THE PROPOSED DOPAMINE RECEPTOR.
161142 04-03

ANALYSIS OF TREMORGENIC EFFECTS OF INTRACAUDATE SEROTONIN (37476).
162047 04-03

A BEHAVIORAL AND PHARMACOLOGICAL ANALYSIS OF SOME DISCRIMINABLE PROPERTIES OF D-LSD IN RATS.
166728 04-04

ANALYSIS OF AMPHETAMINES AND OTHER PSYCHOACTIVE DRUGS.
166901 04-06

ANALYTICAL

AN ANALYTICAL SURVEY OF THE MANAGEMENT OF TRIGEMINAL NEURALGIA.
156250 04-11

ANALYZING

A DEVICE FOR ANALYZING DRUG-INDUCED RESPONSES IN FREELY MOVING MICE.
165729 04-06

ANANCASTIC

SOME PATHOGENIC MECHANISMS OF THE THERAPEUTIC EFFICACY OF ATROPINE IN ANANCASTIC SYNDROMES.
156555 04-10

ANATOMICAL

THE LONG-TERM EFFECT OF PERPHENAZINE ENANTHATE ON THE RAT BRAIN. SOME METABOLIC AND ANATOMICAL OBSERVATIONS.
150668 04-03

ANEMIA

APLASTIC ANEMIA ASSOCIATED WITH LITHIUM THERAPY.
150797 04-15

ANESTHESIA

SEQUENTIAL TRIAL UPON THE AWAKENING EFFECT OF AMANTADINE AFTER KETAMINE ANESTHESIA.
150833 04-13

KETAMINE ANESTHESIA IN BRAIN-DAMAGED EPILEPTICS.
152131 04-13

THE EFFECT OF PHENOBARBITONE ANESTHESIA UPON SOME ORGANIC PHOSPHATES, GLYCOLYTIC METABOLITES AND CITRIC ACID CYCLE ASSOCIATED INTERMEDIATES OF THE RAT BRAIN.
160226 04-03

FLURAZEPAM VERSUS DIAZEPAM IN ANESTHESIA: A CLINICAL STUDY.
167232 04-13

ANESTHETIC

ELECTROGRAPHIC STUDIES OF A NEW VOLATILE ANESTHETIC AGENT: ENFLURANE (ETHRANE).
152037 04-03

ANESTHETICS

EFFECTS OF GENERAL ANESTHETICS ON MEMORY FUNCTIONS IN MAN.
151991 04-14

COMPARATIVE STUDY OF THE EFFICACY OF DIAZEPAM, PENTOBARBITAL, AND FENTANYL-DROPERIDOL (THALAMONAL) AGAINST TOXICITY INDUCED BY LOCAL ANESTHETICS IN MICE.
158304 04-05

ANESTHETIZED

INTERACTION OF CHLORAMPHENICOL AND DELTA1-TETRAHYDROCANNABINOL IN BARBITAL ANESTHETIZED MICE.
162055 04-02

ANGIOTENSIN

THE EFFECTS OF HYPOTHALAMIC IMPLANTS OF ALDOSTERONE, ANGIOTENSIN II, CARBACOL, NOREPINEPHRINE, AND NACL ON WATER AND NACL INTAKE IN NORMAL AND ADRENALECTOMIZED RATS.
159391 04-04

CHARACTERIZATION OF CENTRAL ANGIOTENSIN II RECEPTORS INVOLVED IN THE ELICITATION OF DRINKING IN THE RAT.
162890 04-03

EFFECT OF CHEMICAL SYMPATHECTOMY ON PRESSOR RESPONSES TO NOREPINEPHRINE, ANGIOTENSIN AND TYRAMINE.
163021 04-03

ANIMAL

AN ANIMAL MODEL FOR PSYCHOPHARMACOLOGICAL RESEARCH WITH RELEVANCE TO PSYCHIATRY.
153026 04-06

A NEUROPSYCHOPHARMACOLOGICAL STUDY OF PHENMETRAZINE IN SEVERAL ANIMAL SPECIES.
156811 04-02

EFFECTS OF CHLORDIAZEPOXIDE ALONE AND IN COMBINATION WITH AMPHETAMINE ON ANIMAL AND HUMAN BEHAVIOR.
158283 04-14

SOME ISSUES OF CONTROL IN ALCOHOL RESEARCH ON ANIMAL BEHAVIOR.
159068 04-05

ANIMAL MODELS FOR AN ENZYMIC BLOOD-BRAIN BARRIER MECHANISM FOR THERAPEUTICALLY ADMINISTERED L-DOPA.
159566 04-03

METABOLIC STUDIES ON BENZODIAZEPINES IN VARIOUS ANIMAL SPECIES.
160466 04-03

USE OF ANIMAL MODELS FOR COMPARATIVE STUDIES OF LEAD POISONING.
166737 04-05

ANIMAL PHARMACOLOGY AND HUMAN PSYCHOPHARMACOLOGY OF 3-METHOXY-4,5 METHYLENEDIOXYPHENYLISOPROPYLAMINE (MMDA).
167041 04-01

ANIMALS

THE POSSIBILITY OF PREDICTING THE EFFECTS OF MARIHUANA IN MAN BY MEANS OF PHARMACOLOGICAL TESTS IN LABORATORY ANIMALS. PRELIMINARY RESULTS.
150778 04-13

A COMPARATIVE STUDY OF THE ACTION OF ACTINOMYCIN D AND ACTINOMYCINIC ACID ON THE CENTRAL NERVOUS SYSTEM WHEN INJECTED INTO THE CEREBROSPINAL FLUID OF HIGHER ANIMALS.
152436 04-05

TRH: ENHANCEMENT OF DOPA ACTIVITY IN NORMAL INTACT, HYPOPHYSECTOMIZED AND THYROIDECTOMIZED ANIMALS.
155252 04-03

DRUGS IN STRESSED AND NONSTRESSED ANIMALS.
159397 04-06

EFFECT OF RESERPINE ON FFA MOBILIZATION CAUSED BY EXTREME STIMULATION OF ANIMALS.
161964 04-03

DIAZEPAM METABOLISM AND ANTICONVULSANT ACTIVITY IN NEWBORN ANIMALS.
166691 04-03

ANOREXIA

BIPHASIC ACTION OF 5-HYDROXYTRYPTAMINE INHIBITOR ON FENFLURAMINE INDUCED ANOREXIA.
156804 04-03

ANOREXIGENIC

OBESITY DEPRESSION: CLINICAL EVALUATION WITH A NEW ANOREXIGENIC AGENT.
155886 04-10

ON THE CENTRAL MEDIATION OF ANOREXIGENIC DRUG EFFECTS.
166690 04-03

ANTACIDS

CHLORPROMAZINE: EFFECTS OF ANTACIDS ON ITS GASTROINTESTINAL ABSORPTION.
166716 04-13

ANTAGONISM

PROPRANOLOL ANTAGONISM OF MARIHUANA INDUCED TACHYCARDIA.
150404 04-15

ANTAGONISM BY PROTRIPTYLINE AND DESIPRAMINE OF THE RESPONSE OF THE VAS-DEFERENS OF THE RAT TO NOREPINEPHRINE, ACETYLCHOLINE AND POTASSIUM.
157110 04-03

DOPAMINE ANTAGONISM AND ANTISCHIZOPHRENIC POTENCY OF NEUROLEPTIC DRUGS.
159450 04-08

ANTAGONISM OF DESCENDING EFFECTS OF THE SUBSTANTIA-NIGRA ON LUMBO-SACRAL MONOSYNAPTIC REFLEXES.
160635 04-03

ANTAGONISM OF GUANETHIDINE BY CHLORPROMAZINE.
161907 04-13

SLOW SYNAPTIC INHIBITION AND ADRENERGIC ANTAGONISM IN SYMPATHETIC GANGLION. (UNPUBLISHED PAPER)
162394 04-03

ANTAGONIST

THE EFFECTS OF CINANSERIN, A POTENT SEROTONIN ANTAGONIST, ON THE ACQUISITION OF A RUNNING RESPONSE IN THE RAT.
156808 04-04

SOME AGONISTIC ACTIONS OF THE MORPHINE ANTAGONIST LEVALLORPHAN ON BEHAVIOR AND BRAIN MONOAMINES IN THE RAT.
163757 04-03

ANTAGONISTIC

ANTAGONISTIC ACTIONS OF ALPHA-METHYLNORADRENALINE DERIVED FROM ALPHA-METHYLDOPA.
156803 04-03

ANTAGONISTIC ACTIVITY OF SOME PHENOTHIAZINE DERIVATIVES AGAINST NEUROHUMORAL TRANSMITTERS.
157139 04-03

HOW ANTAGONISTIC CAN DOCTORS BIAS BE ON DRUG EFFECT? OXAZEPAM AS AN ANTIANXIETY AGENT.
160215 04-14

ANTAGONISTS
AGONISTIC PROPERTIES OF NARCOTIC ANALGESICS AND ANTAGONISTS ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR IN THE RAT AND THEIR REVERSAL BY NALOXONE.
160634 04-03
LONG-ACTING MORPHINE ANTAGONISTS -- POLYMER BLENDS.
160750 04-03
FURTHER STUDIES ON THE ADRENERGIC NEURON BLOCKING ACTIVITY OF SOME BETA-ADRENOCEPTOR ANTAGONISTS AND GUANETHIDINE.
161141 04-03
THE EFFECT OF ALPHA-ADRENERGIC AND BETA-ADRENERGIC ANTAGONISTS ON THE SELF-STIMULATION PHENOMENON.
166787 04-04

ANTIAGGRESSIVE
ANTIAGGRESSIVE EFFECTS OF CHLORDIAZEPOXIDE.
158288 04-04

ANTIANXIETY
TWO ANTIANXIETY DRUGS: A PSYCHONEUROENDOCRINE STUDY.
155436 04-13
CLORAZEPATE DIPOTASSIUM: A NEW BENZODIAZEPINE ANTIANXIETY AGENT.
156940 04-10
ANTIANXIETY ACTION OF BENZODIAZEPINES: DECREASE IN ACTIVITY OF SEROTONIN NEURONS IN THE PUNISHMENT SYSTEM.
158280 04-04
STUDY OF ANTIANXIETY EFFECTS OF DRUGS IN THE RAT, WITH A MULTIPLE PUNISHMENT AND REWARD SCHEDULE.
158282 04-04
ANTIANXIETY DRUGS IN CLINICAL PRACTICE.
158284 04-14
HOW ANTAGONISTIC CAN DOCTORS BIAS BE ON DRUG EFFECT? OXAZEPAM AS AN ANTIANXIETY AGENT.
160215 04-14

ANTICHOLINERGIC
METABOLISM, ANTICHOLINERGIC EFFECTS, AND THERAPEUTIC OUTCOME OF DESMETHYLIMIPRAMINE IN DEPRESSIVE ILLNESS.
153121 04-09
INFLUENCE OF ANTICHOLINERGIC ANTIPARKINSONIAN AGENTS ON THE EFFECTS OF NARCOANALGESIC DRUGS IN THE RAT.
162057 04-03

ANTICHOLINERGICS
PHARMACOLOGICAL STUDIES ON MECHANISM OF ANTIPARKINSONIAN DRUGS (REPORT 2): ELEVATION OF STRIATAL HOMOVANILLIC ACID CONTENT BY OXOTREMORINE AND ITS MODIFICATION BY ANTICHOLINERGICS.
158501 04-03
DRUG THERAPY: ANTICHOLINERGICS.
165463 04-15

ANTICOAGULANT
A NOTE ON THE USE OF ANTICOAGULANT THERAPY IN CHRONIC BRAIN SYNDROME.
152030 04-11

ANTICOAGULANTS
INTERACTION OF BENZODIAZEPINES WITH ORAL ANTICOAGULANTS.
158303 04-14

ANTICONVULSANT
SERUM FOLATE LEVELS DURING ANTICONVULSANT THERAPY WITH DIPHENYLHYDANTOIN.
152875 04-14
EXPERIMENTAL AND CLINICAL STUDIES OF THE ANTICONVULSANT PROPERTIES OF A BENZODIAZEPINE DERIVATIVE, CLONAZEPAM (RO-5-4023).
158291 04-13
DIAZEPAM METABOLISM AND ANTICONVULSANT ACTIVITY IN NEWBORN ANIMALS.
166691 04-03
INHIBITION OF BOVINE BRAIN ALDEHYDE REDUCTASE BY ANTICONVULSANT COMPOUNDS IN VITRO.
166699 04-03

ANTICONVULSANTS
BIOCHEMICAL EFFECTS OF THE ANTICONVULSANTS TRIMETHADIONE, ETHOSUXIMIDE, AND CHLORDIAZEPOXIDE IN RAT BRAIN.
152087 04-03

ANTICONVULSIVE
ON THE MECHANISM OF THE ANTICONVULSIVE ACTION OF DERIVATIVES OF BENZODIAZEPINE AND DIPHENYLHYDANTOIN.
151814 04-03

ANTIDEPRESSANT
1766-CERM: A NEW ANTIDEPRESSANT WITH RAPID ACTION.
150644 04-09
REFLECTIONS ON A 3-YEAR TREATMENT OF 120 PATIENTS WITH A NEW ANTIDEPRESSANT.
150645 04-09
STUDY ON THE EFFECT OF A RESERPINE-LIKE SUBSTANCE (TETRABENAZINE) FOLLOWED BY THE ADMINISTRATION OF A TRICYCLIC ANTIDEPRESSANT (DESMETHYLIMIPRAMINE) ON NORMAL SUBJECTS.
151304 04-07
COMBINED THYROID (TRIIODOTHYRONINE) TRICYCLIC ANTIDEPRESSANT TREATMENT IN DEPRESSIVE STATES.
154980 04-09
PITUITARY AND ANTIDEPRESSANT RESPONSES OF WOMEN TO TRH.
155254 04-13
INACTIVITY OF DELTA9-TETRAHYDROCANNABINOL IN ANTIDEPRESSANT SCREENING TESTS.
157142 04-03
BETA BLOCKADE IN THE TREATMENT OF TRICYCLIC ANTIDEPRESSANT OVERDOSAGE.
159585 04-05
PATHOBIOLOGICAL MECHANISMS OF ANTIDEPRESSANT AND ANTIPSYCHOTIC DRUG TOXICITY. (PH.D. DISSERTATION).
159822 04-03
THE EFFECTS OF ANTIDEPRESSANT DRUGS ON PAIN RELIEF AND MOOD IN THE CHRONICALLY ILL: A DOUBLE-BLIND STUDY.
163331 04-11
CLINICAL EXPERIENCES WITH THE NEW ANTIDEPRESSANT MAPROTILIN 34276-BA.
164681 04-09
CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE: STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER).
166960 04-09

ANTIDEPRESSANTS
EFFECT OF TRICYCLIC ANTIDEPRESSANTS ON THE SOMATOSENSORY EVOKED POTENTIAL IN MAN.
150349 04-13
CENTRAL NERVOUS ACTIONS AND SCREENING METHODS OF ANTIDEPRESSANTS.
150397 04-03
CLINICAL EVALUATION OF TWO PROPOSED ANTIDEPRESSANTS.
150834 04-07
EFFECTS OF LITHIUM ON THE ANALGESIA CAUSED BY MORPHINE AND TWO ANTIDEPRESSANTS IN MICE.
151908 04-03
TRICYCLIC ANTIDEPRESSANTS AND LIMB REDUCTION DEFORMITIES: A FURTHER COMMUNICATION FROM THE AUSTRALIAN DRUG EVALUATION COMMITTEE.
151932 04-15
THE ACTION OF ANTIDEPRESSANTS AND CONVULSIVE TREATMENT UPON THE HIGHER NERVOUS ACTIVITY IN DEPRESSIVE STATES.
152152 04-09
PRESCRIPTION OF PSYCHOTROPIC DRUGS BY GENERAL PRACTITIONERS: 2. ANTIDEPRESSANTS.
153264 04-17
RECENT PHARMACOTHERAPY: ANTIDEPRESSANTS.
155071 04-09
ANTIDEPRESSANTS AND LIVER TRYPTOPHAN PYRROLASE ACTIVITY.
155222 04-03
BINDING OF CYPROHEPTADINE-N-METHYL-14C BY HUMAN BLOOD PLATELETS: INHIBITION BY PHENOTHIAZINES AND TRICYCLIC ANTIDEPRESSANTS.
156647 04-13
TRICYCLIC ANTIDEPRESSANTS: ACTION ON SYNAPTOSOMAL ACETYLCHOLINESTERASE AND ATPASE IN THE BRAIN OF GUINEA-PIGS AND SUBCELLULAR DISTRIBUTION.
156813 04-03
DOUBLE-BLIND TEST OF THREE ANTIDEPRESSANTS. SECOND COMMUNICATION: CLINICAL COMPARISON OF NOXIPTILINE, NOR-NOXIPTILINE AND AMITRIPTYLINE WITH THE AMP SYSTEM.
156849 04-09
STUDIES ON THE MECHANISM OF CARDIAC TOXICITY OF TRICYCLIC ANTIDEPRESSANTS.
158474 04-05
CLINICAL TOXICOLOGY VII. POISONING BY SALICYLATES, PARACETAMOL, TRICYCLIC ANTIDEPRESSANTS AND A MISCELLANY OF DRUGS.
159588 04-15
NATURE OF THE EFFECT OF NEUROLEPTICS AND ANTIDEPRESSANTS ON CONDITIONED AND UNCONDITIONED REFLEXES.
160537 04-13
AN EVALUATION OF CONTINUATION THERAPY WITH TRICYCLIC ANTIDEPRESSANTS IN DEPRESSIVE ILLNESS.
162636 04-09
ANTIDEPRESSANTS AS A PROPHYLAXIS AGAINST DEPRESSION IN THE OBSESSIVE COMPULSIVE PERSON.
163329 04-10
PHARMACOKINETIC INTERACTION BETWEEN NEUROLEPTICS AND ANTIDEPRESSANTS: EFFECT ON ORGAN DISTRIBUTION AND METABOLIC PATTERN.
166984 04-03

ANTIDEPRESSIVE
LU-5-003 IN ANTIDEPRESSIVE THERAPY. A CONTROLLED CLINICAL TEST WITH SIMULTANEOUS MEASUREMENT OF PHARMACOKINETIC PARAMETERS. PRELIMINARY REPORT.
166982 04-13

ANTIHYPERTENSIVE
THE CENTRAL ACTION OF ANTIHYPERTENSIVE DRUGS, MEDIATED VIA CENTRAL ALPHAnRECEPTORS.
151626 04-13

ANTIINFLAMMATORY
DISPLACEMENT OF THIOPENTAL FROM PLASMA PROTEINS BY NONSTEROIDAL ANTIINFLAMMATORY AGENTS.
163635 04-05

ANTIMUSCARINIC
BEHAVIORAL EFFECTS OF ANTIMUSCARINIC AND ANTINICOTINIC COMPOUNDS IN RATS.
157341 04-04

ANTINICOTINIC
BEHAVIORAL EFFECTS OF ANTIMUSCARINIC AND ANTINICOTINIC COMPOUNDS IN RATS.
157341 04-04

ANTINOCICEPTION
EFFECT OF CHEMICAL SYMPATHECTOMY ON MORPHINE ANTINOCICEPTION AND TOLERANCE DEVELOPMENT IN THE RAT.
166694 04-03

ANTINOCICEPTIVE
EFFECT OF 6-HYDROXYDOPAMINE, 5, 6 DIHYDROXYTRYPTAMINE AND RAPHE LESIONS ON THE ANTINOCICEPTIVE ACTIONS OF MORPHINE IN RATS.
157141 04-03

DECREASED ANTINOCICEPTIVE ACTIVITY OF MORPHINE IN RATS PRETREATED INTRAVENTRICULARLY WITH 5,6 DIHYDROXYTRYPTAMINE, A LONG-LASTING SELECTIVE DEPLETOR OF BRAIN SEROTONIN.
163775 04-03

ANTIPARKINSON
M.D.S CAUTIONED ON ANTIPARKINSON DRUGS.
155760 04-15

CORRELATION BETWEEN BRAIN DOPAMINE LEVELS AND L-DOPA ACTIVITY IN ANTIPARKINSON TESTS.
156823 04-06

ANTIPARKINSONIAN
STUDY OF THE DELAYED FORM OF A SYNTHETIC ANTIPARKINSONIAN AGENT: AKINETON.
157233 04-09

PHARMACOLOGICAL STUDIES ON MECHANISM OF ANTIPARKINSONIAN DRUGS (REPORT 2): ELEVATION OF STRIATAL HOMOVANILLIC ACID CONTENT BY OXOTREMORINE AND ITS MODIFICATION BY ANTICHOLINERGICS.
158501 04-03

INFLUENCE OF ANTICHOLINERGIC ANTIPARKINSONIAN AGENTS ON THE EFFECTS OF NARCOANALGESIC DRUGS IN THE RAT.
162057 04-03

INFLUENCE OF QUIPAZINE, A POTENTIAL ANTIPARKINSONIAN AGENT ON THE UPTAKE OF 3H-DOPAMINE AND 3H-SEROTONIN INTO RAT STRIATAL TISSUE IN VITRO.
163793 04-03

ANTIPARKINSONISM
SLEEPLESSNESS IN ACUTE AND CHRONIC SCHIZOPHRENIA -- RESPONSE TO HALOPERIDOL AND ANTIPARKINSONISM AGENTS.
150351 04-08

ANTIPSYCHOTIC
THE IMPORTANCE OF DOSAGE IN ANTIPSYCHOTIC DRUG ADMINISTRATION -- A REVIEW OF DOSE-RESPONSE STUDIES.
153096 04-08

OPTIMUM USE OF ANTIPSYCHOTIC DRUGS.
153795 04-08

DOPAMINERGIC NEURONS: EFFECT OF ANTIPSYCHOTIC DRUGS AND AMPHETAMINE ON SINGLE CELL ACTIVITY.
157111 04-03

RISKS VS. BENEFITS OF ANTIPSYCHOTIC DRUGS.
158176 04-15

DRUG THERAPY: NEUROLOGIC SYNDROMES ASSOCIATED WITH ANTIPSYCHOTIC DRUG USE.
158264 04-15

TARDIVE DYSKINESIA: A PERSISTENT NEUROLOGICAL SYNDROME ASSOCIATED WITH ANTIPSYCHOTIC DRUG USE.
159348 04-15

PATHOBIOLOGICAL MECHANISMS OF ANTIDEPRESSANT AND ANTIPSYCHOTIC DRUG TOXICITY. (PH.D. DISSERTATION).
159822 04-03

ANTISCHIZOPHRENIC
DOPAMINE ANTAGONISM AND ANTISCHIZOPHRENIC POTENCY OF NEUROLEPTIC DRUGS.
159450 04-08

ANURIA
ANURIA AFTER THE APPLICATION OF CHLORPROMAZINE.
164679 04-13

ANXIETY
LOW DOSES OF HALOPERIDOL IN ANXIETY -- TENSION STATES.
150554 04-10

EFFECTS OF BETA ADRENERGIC BLOCKADE WITH SOTALOL IN CHRONIC ANXIETY.
151162 04-10

MEASUREMENT AND CONTROL OF PREOPERATIVE ANXIETY.
153197 04-14

LACTATE INFUSION IN THE TREATMENT OF FREE-FLOATING ANXIETY.
153608 04-10

PHARMACOTHERAPY OF TENSION AND ANXIETY.
153794 04-10

THE USE OF HYDROXYZINE (VISTARIL) IN THE TREATMENT OF ANXIETY NEUROSIS.
155792 04-10

THE TREATMENT OF SEVERE ANXIETY IN OUTPATIENTS: A CONTROLLED STUDY COMPARING CHLORDIAZEPOXIDE AND CHLORPROMAZINE.
155794 04-10

CLINICAL RESPONSE TO AMITRIPTYLINE AND CHLORDIAZEPOXIDE AMITRIPTYLINE (LIMBITROL) IN ANXIETY DEPRESSIVE STATES: A DOUBLE-BLIND STUDY.
155887 04-10

THE USE OF LSD IN THE PSYCHOANALYTIC TREATMENT OF A CASE OF ANXIETY HYSTERIA.
156920 04-10

DRUG RESPONSES IN DIFFERENT ANXIETY STATES UNDER BENZODIAZEPINE TREATMENT. SOME MULTIVARIATE ANALYSES FOR THE EVALUATION OF RATING SCALE FOR DEPRESSION SCORES.
158285 04-14

PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09

THIORIDAZINE: ALLEVIATION OF THE MIXED ANXIETY DEPRESSIVE PSYCHONEUROTIC STATE.
159067 04-14

THE MONOAMINE OXIDASE INHIBITOR, PHENELZINE, IN THE TREATMENT OF DEPRESSIVE ANXIETY STATES.
159776 04-09

DRUG TREATMENT OF ANXIETY AND DEPRESSION IN DETOXIFIED ALCOHOLIC PATIENTS.
162170 04-11

PHENELZINE IN PHOBIC ANXIETY: A CONTROLLED TRIAL.
162647 04-09

A DOUBLE-BLIND STUDY OF DIAZEPAM AND DOXEPIN USED IN ANXIETY TREATMENT.
166985 04-10

ANXIOLYTIC
DISSOCIATION OF TWO COMPONENTS OF RAT BEHAVIOR BY PSYCHOTROPIC DRUGS: UTILIZATION FOR STUDYING ANXIOLYTIC DRUGS.
163760 04-04

ANXIOLYTIC EFFECTS OF A NEW TRIAZOLOBENZODIAZEPINE. U-31889.
164219 04-10

ANXIOUS
PREDICTORS OF RESPONSE TO BENZODIAZEPINES IN ANXIOUS OUTPATIENTS.
158286 04-14

APAURINE
ANALYSIS OF CLINICAL EXPERIENCES OBTAINED IN 100 CASES OF ACUTE APAURINE DIAZEPAM INTOXICATION.
152085 04-15

APHENDIONE
ACTION OF CARBAMAZEPINE (TEGRETOL) AND APHENDIONE ON REACTIONS PROVOKED BY INTRAAMYGDALOID ADMINISTRATION OF CARBACHOLINE TO RABBITS.
151815 04-04

APLASTIC
APLASTIC ANEMIA ASSOCIATED WITH LITHIUM THERAPY.
150797 04-15

APOMORPHINE
INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04

APOMORPHINE INDUCED AGGRESSION: CHARACTERISTICS, PHARMACOLOGICAL INTERVENTION, AND SITE OF ACTION.
155246 04-03

EFFECTS OF AMANTADINE, AMPHETAMINE AND APOMORPHINE ON THE LOCOMOTOR ACTIVITY IN RATS.
156752 04-04

THE CARDIOVASCULAR EFFECTS OF APOMORPHINE IN THE ANAESTHETIZED RAT.
156818 04-03

ON THE MODE OF ACTION OF APOMORPHINE.
156824 04-03

EVIDENCE FOR THE METHYLATION OF APOMORPHINE BY CATECHOL-O-METHYLTRANSFERASE IN VIVO AND IN VITRO.
160545 04-03

ANALYSIS OF THE EFFECTS OF APOMORPHINE AND BULBOCAPNINE IN RELATION TO THE PROPOSED DOPAMINE RECEPTOR.
161142 04-03

COMPARISON OF EFFECTS OF L-DOPA, AMPHETAMINE AND APOMORPHINE ON FIRING RATE OF RAT DOPAMINERGIC NEURONES. 162974 04-03

APPARATUS
THE EFFECTS OF SCOPOLAMINE ON PREEXPOSURE TO A LEARNING APPARATUS. 151224 04-04
NEW APPARATUS FOR LEARNING EXPERIMENT AND ITS APPLICATION - THE EFFECT OF CHLORPROMAZINE, RESERPINE AND AMPHETAMINE. 158493 04-04

APPETITIVE
ENHANCED APPETITIVE DISCRIMINATION LEARNING IN RATS TREATED WITH ALPHA-METHYLTYROSINE. 150320 04-04

APPROACH
5-HYDROXYTRYPTAMINE SUPERSENSITIVITY AS A NEW THEORY OF HEADACHE AND CENTRAL PAIN: A CLINICAL PHARMACOLOGICAL APPROACH WITH P-CHLOROPHENYLALANINE. 150670 04-15
THE NOOTROPIC APPROACH TO THE PHARMACOLOGY OF THE INTEGRATIVE ACTIVITY OF THE BRAIN. 159396 04-07
SYMPOSIUM: NEW THERAPEUTIC APPROACH TO SCHIZOPHRENIA. 165728 04-08

APPROACHES
MULTIMODALITY APPROACHES TO THE TREATMENT AND PREVENTION OF OPIATE ADDICTION. 155241 04-17

ARGENTINA
NEW DRUG DEVELOPMENTS IN THE LATIN-AMERICAS (ARGENTINA, COSTA-RICA, MEXICO, AND PANAMA). 155273 04-17

ARGINIL
THOUGHTS ON TREATMENT OF ADDICTION: EXPERIENCES WITH ARGINIL (GLUCOSE-1-PHOSPHATE-ARGININE). 151014 04-11

ARMINE
ON THE USE OF ARMINE IN THE QUALITY OF PSYCHOSTIMULATING DRUGS IN SCHIZOPHRENIA. 156589 04-08

AROMATIC
SIMULTANEOUS MEASUREMENT OF TYROSINE AND TRYPTOPHAN HYDROXYLASE ACTIVITIES IN BRAIN IN VIVO USING AN INHIBITOR OF THE AROMATIC AMINO ACID DECARBOXYLASE. 150402 04-03

ARTEFACTS
NORADRENALINE ARTEFACTS. 162438 04-03
NORADRENALINE ARTEFACTS: A REPLY. 162439 04-03

ARTERIOSCLEROSIS
PHARMACOLOGICAL TREATMENT OF CEREBRAL ARTERIOSCLEROSIS WITH A NEW DRUG COMBINATION. 151268 04-11

ARTHRITIS
DOUBLE-BLIND TRIAL OF DIAZEPAM IN RHEUMATOID ARTHRITIS. 158353 04-17

ASOCIAL
PREMORBID ASOCIAL ADJUSTMENT AND RESPONSE TO PHENOTHIAZINE TREATMENT AMONG SCHIZOPHRENIC INPATIENTS. 164714 04-08

ASSAY
DEUTERIUM SUBSTITUTED AMPHETAMINE AS AN INTERNAL STANDARD IN A GC/MS ASSAY FOR AMPHETAMINE. 156906 04-06
AN ASSAY PROCEDURE FOR TRYPTAMINE IN BRAIN AND SPINAL CORD USING ITS 3H DANSYL DERIVATIVE. 161380 04-06

ASSESSMENT
A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG. 156814 04-03
BEHAVIORAL TOXICOLOGIC ASSESSMENT OF THE NEUROLOGIC EFFECT OF LEAD IN SHEEP. 166736 04-05

ASSIGNMENT
COMPUTER ASSIGNMENT OF PSYCHOTROPIC DRUGS. 152899 04-17
CLINICAL JUDGMENT VS. MULTIVARIATE FORMULAE IN ASSIGNMENT OF PSYCHOTROPIC DRUGS. 161818 04-14

ASSISTED
LSD ASSISTED PSYCHOTHERAPY IN PATIENTS WITH TERMINAL CANCER. 161385 04-11

ASSOCIATION
COMPARISON OF L-DOPA WITH ITS ASSOCIATION WITH AN L-DOPA DECARBOXYLASE INHIBITOR IN THE MANAGEMENT OF PARKINSONS DISEASE. 150631 04-15
THE EFFECT OF PHARMACOLOGIC TREATMENT ON ASSOCIATION DISTURBANCES IN SCHIZOPHRENIA. 150745 04-08
OBSERVATIONS ON THE USE OF LITHIUM SALTS IN ASSOCIATION WITH PSYCHOTROPIC DRUGS. 151265 04-09

ASYMMETRICAL
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) AND CHLORDIAZEPOXIDE (CDP) ON STATE-DEPENDENT LEARNING: EVIDENCE FOR ASYMMETRICAL DISSOCIATION. 150301 04-04

ATOMS
EFFECTS OF D-AMPHETAMINE ON THE INCORPORATION OF CARBON ATOMS OF D-MANNOSE INTO THE BRAINS AND SERA OF DIFFERENTIALLY HOUSED MICE: SHORT-TERM REVERSIBILITY OF THESE EFFECTS. 163779 04-03

ATP
EFFECT OF MORPHINE ON THE RNA AND ATP CONCENTRATION OF BRAIN STRUCTURES OF THE RAT. 167043 04-03

ATPASE
TRICYCLIC ANTIDEPRESSANTS: ACTION ON SYNAPTOSOMAL ACETYLCHOLINESTERASE AND ATPASE IN THE BRAIN OF GUINEA-PIGS AND SUBCELLULAR DISTRIBUTION. 156813 04-03

ATROPINE
INTERACTION OF OXOTREMORINE WITH ATROPINE, CHLORPROMAZINE, CYPROHEPTADINE, IMIPRAMINE AND PHENOXYBENZAMINE ON THE FLEXOR REFLEX OF THE CHRONIC SPINAL DOG. 150318 04-03
SOME PATHOGENIC MECHANISMS OF THE THERAPEUTIC EFFICACY OF ATROPINE IN ANANCASTIC SYNDROMES. 156555 04-10
THE EFFECTS OF ATROPINE AND ESERINE ON SPATIAL DISCRIMINATION IN C57BL/10 MICE. (PH.D. DISSERTATION). 163132 04-04

ATTACKS
BENZONAL IN THE TREATMENT OF EPILEPTIC ATTACKS IN CHILDREN. 156566 04-11

ATTENDING
EFFECTS OF RITALIN ON HYPERKINETIC CHILDREN ATTENDING THE GLENDALE ELEMENTARY SCHOOLS. (ED.D. DISSERTATION). 162069 04-11

ATTENUATION
DRUG-INDUCED ATTENUATION OF ALCOHOL CONSUMPTION: A REVIEW AND EVALUATION OF CLAIMED, POTENTIAL OR CURRENT THERAPIES. 154690 04-11
ATTENUATION OF HYPOTHERMIC RETROGRADE AMNESIA PRODUCED BY PHARMACOLOGIC BLOCKAGE OF BRAIN SEIZURES. 157125 04-04
ATTENUATION OF THE MORPHINE EEG CONTINUUM FOLLOWING A REPEAT DOSE WITHIN 16 DAYS: DELAYED TOLERANCE IN THE RAT. 160633 04-03

ATTITUDES
PHYSICIAN CHARACTERISTICS AND ATTITUDES TOWARD LEGITIMATE USE OF PSYCHOTHERAPEUTIC DRUGS. 158645 04-17

AUDIOGENIC
THE INFLUENCE OF SOUND PRESSURE LEVEL UPON THE POTENCY OF PHENOBARBITONE SODIUM AND MEPROBAMATE AGAINST AUDIOGENIC SEIZURES IN MICE. 151591 04-04
ROLE OF BRAIN 5-HYDROXYTRYPTAMINE IN AUDIOGENIC SEIZURE IN THE RAT. 159565 04-03
PSYCHOACTIVE COMPOUNDS AND AUDIOGENIC SEIZURE SUSCEPTIBILITY. 160770 04-03
DELTA9-TETRAHYDROCANNABINOL EFFECT ON AUDIOGENIC SEIZURE SUSCEPTIBILITY. 162273 04-03
EFFECT OF LITHIUM CARBONATE AND ALPHA-METHYL-P-TYROSINE ON AUDIOGENIC SEIZURE INTENSITY. 163803 04-03
REDUCTION OF AUDIOGENIC SEIZURE BY DELTA8- AND DELTA9-TETRAHYDROCANNABINOLS. 166001 04-04

AUDITORY
PARA-CHLOROPHENYLALANINE: ITS EFFECTS ON AUDITORY DISCRIMINATION. 153104 04-04

AUDITORY SENSITIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL SENSORY ACTIVITY AND SPONTANEOUS MOTOR ACTIVITY.
158487 04-03

AUGMENTATION
AUGMENTATION OF PRESSOR RESPONSE TO CATECHOLAMINE BY N,N DIMETHYLETHYLENEDIAMINES.
158476 04-03

AUSTRALIAN
LEVODOPA IN PARKINSONS DISEASE -- AUSTRALIAN COLLABORATIVE TRIAL.
150789 04-14

TRICYCLIC ANTIDEPRESSANTS AND LIMB REDUCTION DEFORMITIES: A FURTHER COMMUNICATION FROM THE AUSTRALIAN DRUG EVALUATION COMMITTEE.
151932 04-15

AUTISM
ON THE THERAPY OF AUTISM.
156595 04-11

AUTONOMIC
DELTA9-TETRAHYDROCANNABINOL: ELECTROENCEPHALOGRAPHIC CHANGES AND AUTONOMIC RESPONSES IN THE RABBIT.
154970 04-03

AUTONOMIC CORRELATES OF THE SEDATION THRESHOLD.
155526 04-13

AVAILABILITY
PROBLEMS AND EXPERIENCES WITH TRIALS OUTSIDE THE UNITED-STATES: THE TIME LAG IN NEW DRUG AVAILABILITY.
155274 04-17

AVERSION
CONDITIONED AVERSION TO A PREFERRED SOLUTION FOLLOWING METHAMPHETAMINE INJECTIONS.
153105 04-04

MORPHINE INDUCED SACCHARIN AVERSION IN ALPHA-METHYLTYROSINE PRETREATED RATS.
162279 04-03

AVERSIONS
TASTE AVERSIONS AND ACUTE METHYLMERCURY POISONING IN RATS.
155341 04-05

EFFECTS OF VENTROMEDIAL HYPOTHALAMIC LESIONS ON CONDITIONED SUCROSE AVERSIONS IN RATS.
162673 04-02

AVERSIVE
AVERSIVE CONDITIONING BY PSYCHOACTIVE DRUGS: EFFECTS OF MORPHINE, ALCOHOL AND CHLORDIAZEPOXIDE.
153107 04-04

CLASSICAL AVERSIVE CONDITIONING IN CATS UNDER VARIOUS NEUROMUSCULAR BLOCKING DRUGS.
153217 04-04

AVOIDANCE
DECREASED SENSITIVITY OF SEPTAL MICE TO IMPAIRMENT OF TWO-WAY AVOIDANCE BY CHLORPROMAZINE.
150350 04-04

AVOIDANCE DECREMENT PHENOMENA AND MEASUREMENTS OF DRUG EFFECTS.
152191 04-04

EXTINCTION OF AVOIDANCE IN RATS: THE EFFECTS OF CHLORPROMAZINE AND METHYLPHENIDATE ADMINISTERED IN CONJUNCTION WITH FLOODING RESPONSE (PREVENTION).
152525 04-04

DOPA REVERSAL OF HYPOXIA INDUCED DISRUPTION OF THE CONDITIONED AVOIDANCE RESPONSE.
155904 04-04

ACQUISITION AND LOSS OF TOLERANCE TO 1 DELTA9-TRANS-TETRAHYDROCANNABINOL IN RATS ON AN AVOIDANCE SCHEDULE.
157039 04-04

ECS PRODUCED DISRUPTION OR FACILITATION OF DISCRIMINATED ACTIVE AVOIDANCE PERFORMANCE IN RATS.
157094 04-03

THE EFFECT OF ALPHA-AMANITIN ON PASSIVE AND ACTIVE AVOIDANCE ACQUISITION IN MICE.
157154 04-04

EFFECT OF PROPRANOLOL ON FREE FATTY ACIDS OF MICE PLASMA DURING A PASSIVE AVOIDANCE TEST.
157155 04-03

THE ROLE OF STRESS IN PASSIVE AVOIDANCE TASKS. (PH.D. DISSERTATION).
159175 04-17

AWAKE
CORTICAL CUPS FOR COLLECTING FREE ACETYLCHOLINE IN AWAKE RATS. (UNPUBLISHED PAPER)
158057 04-06

AWAKENING
SEQUENTIAL TRIAL UPON THE AWAKENING EFFECT OF AMANTADINE AFTER KETAMINE ANESTHESIA.
150833 04-13

AXON
COMPARISON OF THE EFFECT OF DELTA9-TETRAHYDROCANNABINOL, 11-HYDROXY-DELTA9-TETRAHYDROCANNABINOL, AND ETHANOL ON THE ELECTROPHYSIOLOGICAL ACTIVITY OF THE GIANT AXON OF THE SQUID.
156816 04-03

AXONAL
A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

AXONAL TRANSPORT OF DOPAMINE-BETA-HYDROXYLASE BY HUMAN SURAL NERVES IN VITRO.
162880 04-13

BABIES
LITHIUM AND PREGNANCY -- I, REPORT FROM THE REGISTER OF LITHIUM BABIES.
155041 04-15

BABOON
EFFECTS OF L-TRYPTOPHAN, L-3,4,DIHYDROXYPHENYLALANINE AND TRANYLCYPROMINE ON THE ELECTROENCEPHALOGRAM AND ON PHOTICALLY INDUCED EPILEPSY IN THE BABOON, PAPIO-PAPIO.
152044 04-03

BACKGROUND
THE BACKGROUND TO THE NIACIN TREATMENT.
150951 04-08

BARBITAL
INTERACTION OF CHLORAMPHENICOL AND DELTA1-TETRAHYDROCANNABINOL IN BARBITAL ANESTHETIZED MICE.
162055 04-02

BARBITURATE
USE OF ORAL DDT IN THREE HUMAN BARBITURATE INTOXICATIONS: HEPATIC ENZYME INDUCTION BY RECIPROCAL DETOXICANTS.
155205 04-15

BARBITURATE TOLERANCE AND PSYCHOLOGICAL FUNCTIONING IN ELDERLY DEPRESSED PATIENTS.
162639 04-09

EFFECTS OF AMPHETAMINE AND BARBITURATE ON BODY EXPERIENCE.
165416 04-14

BARBITURATES
URINARY EXCRETION OF MONOAMINES AND METABOLITES IN PATIENTS DEPENDENT ON AND WITHDRAWN FROM BARBITURATES.
150293 04-13

POISONING BY THE BARBITURATES, AND A VARIETY OF HYPNOTICS AND SEDATIVES.
155753 04-15

RAPID DETECTION OF BARBITURATES IN URINE.
156848 04-06

THE EFFECTS OF BENZODIAZEPINES, MEPROBAMATE, AND BARBITURATES ON CENTRAL MONOAMINE NEURONS.
160472 04-03

BARRIER
BLOOD-BRAIN BARRIER TO CARBIDOPA (MK-486) AND RO-4-4602, PERIPHERAL DOPA DECARBOXYLASE INHIBITORS.
155906 04-03

ANIMAL MODELS FOR AN ENZYMIC BLOOD-BRAIN BARRIER MECHANISM FOR THERAPEUTICALLY ADMINISTERED L-DOPA.
159566 04-03

BARS
EXPERIMENTS BEHIND BARS: DOCTORS, DRUG COMPANIES, AND PRISONERS.
156835 04-07

BASAL
SKIN CONDUCTANCE BASAL LEVEL AND REACTIVITY IN SCHIZOPHRENIA AS A FUNCTION OF CHRONICITY, PREMORBID ADJUSTMENT, DIAGNOSIS, AND MEDICATION.
154170 04-08

BASE
AN EXAMINATION OF ACID BASE EQUILIBRIA OF 1,4 BENZODIAZEPINES BY SPECTROPHOTOMETRY.
155902 04-16

BASOPHIL
BLOOD HISTAMINE, BASOPHIL COUNTS, AND TRACE ELEMENTS IN THE SCHIZOPHRENIAS.
150964 04-08

BED-WETTERS
BED-WETTERS AND THE PERILOUS PILL.
165567 04-15

BEHAVIOR
THE EFFECT OF A STIMULANT DRUG (METHAMPHETAMINE) ON COGNITIVE IMPULSIVITY, PLANNING, NEW LEARNING, AND SOCIAL BEHAVIOR IN HYPERACTIVE CHILDREN. (PH.D. DISSERTATION).
149717 04-14

BLOCKADE OF D-AMPHETAMINE INDUCED STEREOTYPED BEHAVIOR BY BULBOCAPNINE.
150405 04-04

ALTERATION OF SEXUAL BEHAVIOR AND SEX ACCESSORY GLANDS BY P-CHLOROPHENYLALANINE AND TESTOSTERONE.
150422 04-04

CONTRIBUTIONS OF DIFFERENTIAL HOUSING TO BRAIN DEVELOPMENT: SOME IMPLICATIONS FOR SLEEP BEHAVIOR.
151705 04-03

DEVELOPMENTAL CHANGES IN NEUROCHEMISTRY DURING THE MATURATION OF SLEEP BEHAVIOR.
151707 04-03

LONG-TERM EFFECTS OF MORPHINE ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR OF THE RAT.
153103 04-03

GENETIC PROGRAM OF BRAIN BIOGENIC AMINES AND AGGRESSIVE BEHAVIOR.
155244 04-03

BIOGENIC AMINES AND THEIR METABOLISM IN THE STUDY OF AGGRESSIVE BEHAVIOR IN RATS.
155248 04-04

L-DOPA AND BEHAVIOR.
155866 04-11

NORADRENERGIC AND CHOLINERGIC ACTION ON NEURONAL ACTIVITY DURING SELF-STIMULATION BEHAVIOR IN THE RAT.
156810 04-04

EFFECTS ON OFFSPRING BEHAVIOR OF PARENTAL EARLY DRUG EXPERIENCE AND CROSS-FOSTERING.
157043 04-04

DIFFERENTIAL EFFECTS OF DELTA9-THC ON LOCOMOTOR BEHAVIOR IN ACTIVITY WHEEL HABITUATED AND NONHABITUATED RATS.
157182 04-04

THE EFFECTS OF STIMULANTS AND DEPRESSANTS ON COCAINE SELF-ADMINISTRATION BEHAVIOR IN THE RHESUS MONKEY.
157998 04-04

EFFECTS OF PROPRANOLOL AND CHLORDIAZEPOXIDE ON CONFLICT BEHAVIOR IN RATS.
158005 04-04

EFFECTS OF CHLORDIAZEPOXIDE ALONE AND IN COMBINATION WITH AMPHETAMINE ON ANIMAL AND HUMAN BEHAVIOR.
158283 04-14

ACTIVITY OF BENZODIAZEPINES ON AGGRESSIVE BEHAVIOR IN RATS AND MICE.
158287 04-04

EFFECTS OF CS-386 AND CLOXAZOLAM ON CONDITIONED BEHAVIOR OF PAIRED MONKEYS.
158491 04-04

CHARACTERISTICS OF ABNORMAL BEHAVIOR INDUCED BY 2-(2,6 DICHLOROPHENYLAMINO)-2 IMIDAZOLINE (ST-155) IN MICE.
158494 04-04

SOME ISSUES OF CONTROL IN ALCOHOL RESEARCH ON ANIMAL BEHAVIOR.
159068 04-05

EFFECTS OF DRUG-INDUCED BEHAVIOR CHANGES IN HYPERACTIVE CHILDREN ON MATERNAL ATTITUDE AND PERSONALITY. (PH.D. DISSERTATION).
159130 04-14

COMPARABLE BEHAVIOR MAINTAINED UNDER FIXED-RATIO AND SECOND-ORDER SCHEDULES OF FOOD PRESENTATION, COCAINE INJECTION OR D-AMPHETAMINE INJECTION IN THE SQUIRREL MONKEY.
159367 04-04

EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF CANNABIS-SATIVA EXTRACT ON THE MOUSE KILLING BEHAVIOR OF RATS.
159568 04-04

STUDIES ON POSSIBLE CORRELATIONS BETWEEN CHOLINESTERASE LEVELS IN MOUSE BRAIN AND BEHAVIOR. (PH.D. DISSERTATION).
159827 04-03

AGONISTIC PROPERTIES OF N^RCOTIC ANALGESICS AND ANTAGONISTS ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR IN THE RAT AND THEIR REVERSAL BY NALOXONE.
160634 04-03

REDUCTION OF HYPERACTIVE BEHAVIOR BY CONDITIONING PROCEDURES ALONE AND COMBINED WITH METHYLPHENIDATE (RITALIN).
161049 04-14

EFFECTS OF (-)DELTA9-TRANS-TETRAHYDROCANNABINOL AND ITS SELECTIVITY IN SEVERAL MODELS OF AGGRESSIVE BEHAVIOR.
161962 04-04

THE EFFECTS OF N,N DIMETHYLTRYPTAMINE ON OPERANT BEHAVIOR IN SQUIRREL MONKEYS.
162274 04-04

EFFECT OF LITHIUM ON COMBATIVE BEHAVIOR IN HUMANS.
162364 04-14

ROLE OF ADRENAL HORMONES IN INCUBATION BEHAVIOR OF MALE RING DOVES (STREPTOPELIA-RISORIA).
162667 04-03

THE EFFECT OF SMALL DOSES OF MECAMYLAMINE ON SHUTTLEBOX BEHAVIOR IN THE GUINEA-PIG.
163020 04-04

BEHAVIOR OF FREE-RANGING MACAQUES AFTER INTRAVENTRICULAR 6-HYDROXYDOPAMINE.
163161 04-04

SHORT-TERM EFFECTS OF MARIJUANA SMOKING ON COGNITIVE BEHAVIOR IN EXPERIENCED MALE USERS.
163755 04-14

SOME AGONISTIC ACTIONS OF THE MORPHINE ANTAGONIST LEVALLORPHAN ON BEHAVIOR AND BRAIN MONOAMINES IN THE RAT.
163757 04-03

DISSOCIATION OF TWO COMPONENTS OF RAT BEHAVIOR BY PSYCHOTROPIC DRUGS: UTILIZATION FOR STUDYING ANXIOLYTIC DRUGS.
163760 04-04

THE EFFECTS OF CHRONIC CANNABIS TREATMENT ON THE AGGRESSIVE BEHAVIOR AND BRAIN 5-HYDROXYTRYPTAMINE LEVELS OF RATS WITH DIFFERENT TEMPERAMENTS.
163778 04-04

5-HYDROXYTRYPTAMINE METABOLISM, SUPERIOR-COLLICULUS, AND GROOMING BEHAVIOR IN CATS WITH PONTILE LESIONS.
166157 04-03

BRAIN AMINE RELEASE DURING SUPPRESSED BEHAVIOR.
166530 04-03

BEHAVIORAL

BEHAVIORAL PROFILE OF A POTENT NEW PSYCHOTOXIC COMPOUND.
150294 04-07

VEHICLE AND ROUTE OF ADMINISTRATION AS PARAMETERS AFFECTING OPERANT BEHAVIORAL EFFECTS OF DELTA9-TETRAHYDROCANNABINOL.
150414 04-04

BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. I. CHLORPROMAZINE AND THIORIDAZINE.
152867 04-11

BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. II. MULTIVITAMIN SUPPLEMENT.
152868 04-11

NEUROCHEMICAL AND BEHAVIORAL BASES OF ETHOLOGICAL AGGRESSION.
155242 04-03

GROWTH AND BEHAVIORAL CHANGES IN DEVELOPING RATS TREATED INTRACISTERNALLY WITH 6-HYDROXYDOPAMINE: EVIDENCE FOR INVOLVEMENT OF BRAIN DOPAMINE.
157117 04-03

COMPARISON OF THE BEHAVIORAL DEPRESSANT EFFECTS OF BIOGENIC AMINE DEPLETING AND NEUROLEPTIC AGENTS FOLLOWING VARIOUS 6-HYDROXYDOPAMINE TREATMENTS.
157140 04-04

PHYSIOLOGICAL AND BEHAVIORAL EFFECTS OF PARA-CHLOROPHENYLALANINE IN THE RAT.
157143 04-03

BEHAVIORAL AND BIOCHEMICAL EFFECTS OF ALPHA-METHYLTYROSINE IN CATS.
157144 04-04

ACUTE EFFECTS OF TWO TETRAHYDROCANNABINOLS (DELTA9-THC AND DELTA8-THC) ON WATER INTAKE IN WATER DEPRIVED RATS: IMPLICATIONS FOR BEHAVIORAL STUDIES ON MARIHUANA COMPOUNDS.
157149 04-04

BEHAVIORAL EFFECTS OF ANTIMUSCARINIC AND ANTINICOTINIC COMPOUNDS IN RATS.
157341 04-04

BEHAVIORAL OBSERVATIONS ON COMPOUNDS FOUND IN NUTMEG.
158003 04-04

EEG AND BEHAVIORAL EFFECTS OF NATURAL, SYNTHETIC AND BIOSYNTHETIC CANNABINOIDS.
158004 04-04

BEHAVIORAL AND PSYCHOSOMATIC EFFECTS OF BENZODIAZEPINES: INTERACTIONS WITH OTHER DRUGS.
158301 04-14

PHARMACOLOGICAL STUDIES ON THE HYPOTHALAMUS (REPORT 7). CONDITIONING OF HYPOTHALAMIC BEHAVIORAL RESPONSES AND EFFECTS OF PSYCHOTROPIC DRUGS.
158488 04-04

DIURNAL RHYTHM IN BEHAVIORAL EFFECTS OF METHAMPHETAMINE, P-CHLOROMETHAMPHETAMINE AND SCOPOLAMINE.
159366 04-04

DIFFERENTIAL EFFECTS OF RESERPINE AND ALPHA-METHYL-P-TYROSINE ON NOREPINEPHRINE AND DOPAMINE INDUCED BEHAVIORAL ACTIVITY.
162277 04-04

DISSOCIATION OF SOME BEHAVIORAL EFFECTS OF INTRAVENTRICULAR DOPAMINE AND NOREPINEPHRINE. (PH.D. DISSERTATION).
163450 04-04

BIOLOGICAL MECHANISMS UNDERLYING THE DEVELOPMENT OF BEHAVIORAL TOLERANCE TO DIISOPROPYLFLUOROPHOSPHATE. (PH.D. DISSERTATION).
163535 04-03

REVIEW OF BEHAVIORAL TECHNIQUES.
163647 04-11

THE BEHAVIORAL EFFECTS OF DIBUTYRYL CYCLIC AMP IN MICE.
163696 04-04

COMPARISON OF BEHAVIORAL EFFECTS OF NICOTINE, D-AMPHETAMINE, CAFFEINE AND DIMETHYLHEPTYL TETRAHYDROCANNABINOL IN SQUIRREL MONKEYS.
163750 04-04

BEHAVIORAL AND BIOCHEMICAL EFFECTS OF CHRONIC ADMINISTRATION OF BROMIDE IN THE RAT.
163753 04-04

BEHAVIORAL EFFECTS OF L-DOPA IN SCHIZOPHRENIC PATIENTS.
163754 04-08

BEHAVIORAL EFFECTS OF DIAZEPAM, PENTOBARBITAL, METHAMPHETAMINE AND THEIR COMBINATIONS ON DRL 20SEC FOR WATER.
165647 04-04

A BEHAVIORAL AND PHARMACOLOGICAL ANALYSIS OF SOME DISCRIMINABLE PROPERTIES OF D-LSD IN RATS.
166728 04-04

BEHAVIORAL TOXICOLOGIC ASSESSMENT OF THE NEUROLOGIC EFFECT OF LEAD IN SHEEP.
166736 04-05

A LEAD INDUCED BEHAVIORAL DISORDER.
166785 04-05

BEHAVIORALLY

EFFECTS OF BEHAVIORALLY ACTIVE DRUGS IN A CONFLICT PUNISHMENT PROCEDURE IN RATS.
158281 04-04

BEHAVIORS

THE DIFFERENTIATION OF OPERANT AND ADJUNCTIVE BEHAVIORS. (PH.D. DISSERTATION).
167237 04-04

BEHAVIOUR

CHEMICAL INFLUENCES ON BEHAVIOUR.
150155 04-15

LONG-TERM INTERACTIONS OF MARIJUANA AND BEHAVIOUR IN CHIMPANZEES.
150388 04-04

THE EFFECTS OF BENZODIAZEPINES ON THE BEHAVIOUR OF MICE ON A HOLE-BOARD.
153102 04-04

BEHAVIOUR THERAPY VERSUS DRUG THERAPY IN THE TREATMENT OF PHOBIC NEUROSIS.
153606 04-10

DRUG-INDUCED REINSTATEMENT OF AMPHETAMINE SELF-ADMINISTRATION BEHAVIOUR IN MONKEYS.
154210 04-04

EFFECTS OF RESERPINE, 6-HYDROXYDOPAMINE, P-CHLOROPHENYLALANINE AND A COMBINATION OF THESE SUBSTANCES ON THE GROOMING BEHAVIOUR OF MICE.
158001 04-04

EFFECTS OF LICL ON AGGRESSIVE BEHAVIOUR AND BRAIN AMINES IN MICE.
158498 04-04

THE EFFECTS OF CHOLINERGIC DRUGS ON OPERANT BEHAVIOUR OF THE RAT. (PH.D. DISSERTATION).
160910 04-04

THE EFFECTS OF PIMOZIDE ON DOMINANT SUBORDINATE BEHAVIOUR IN WISTAR RATS COMPETING FOR FOOD.
163758 04-04

THE EFFECTS OF CHRONIC FENFLURAMINE ADMINISTRATION ON BEHAVIOUR AND BODY WEIGHT.
163759 04-04

TRANSFER OF STATE-DEPENDENT CONTROL OF DISCRIMINATIVE BEHAVIOUR BETWEEN SUBCUTANEOUSLY AND INTRAVENTRICULARLY ADMINISTERED NICOTINE AND SALINE.
163771 04-04

BEHAVIOURAL

BEHAVIOURAL AND PHARMACOLOGICAL STUDIES ON MORPHINE INDUCED EXCITATION OF RATS. POSSIBLE RELATION TO BRAIN CATECHOLAMINES.
150667 04-04

BEHAVIOURAL AND DRUG TREATMENT OF CHILDREN WITH SEVERE MENTAL HANDICAP.
151452 04-11

BEHAVIOURAL AND BIOCHEMICAL INTERACTION BETWEEN CAFFEINE AND L-DOPA.
156757 04-04

POSSIBLE CATECHOLAMINE MEDIATION OF LEVALLORPHAN INDUCED BEHAVIOURAL DISRUPTION IN RATS.
157041 04-04

BENPERIDOL

BENPERIDOL IN THE TREATMENT OF SEXUAL OFFENDERS.
159408 04-11

BENZIMIDAZOLE

BIOGENIC AMINE DEPLETING EFFECTS OF BENZIMIDAZOLE 5(6) DL-ALANINE.
150315 04-03

BENZOCTAMINE

DIAZEPAM AND BENZOCTAMINE: EFFECTS ON CERTAIN OBJECTIVE PARAMETERS OF MUSCULAR SPASTICITY.
160642 04-13

BENZODIAZEPINE

ON THE MECHANISM OF THE ANTICONVULSIVE ACTION OF DERIVATIVES OF BENZODIAZEPINE AND DIPHENYLHYDANTOIN.
151814 04-03

CLORAZEPATE DIPOTASSIUM: A NEW BENZODIAZEPINE ANTIANXIETY AGENT.
156940 04-10

DRUG RESPONSES IN DIFFERENT ANXIETY STATES UNDER BENZODIAZEPINE TREATMENT. SOME MULTIVARIATE ANALYSES FOR THE EVALUATION OF RATING SCALE FOR DEPRESSION SCORES.
158285 04-14

EXPERIMENTAL AND CLINICAL STUDIES OF THE ANTICONVULSANT PROPERTIES OF A BENZODIAZEPINE DERIVATIVE, CLONAZEPAM (RO-5-4023).
158291 04-13

ABUSE OF BENZODIAZEPINE TRANQUILIZERS.
165679 04-17

BENZODIAZEPINES

THE EFFECTS OF BENZODIAZEPINES ON AGGRESSION: REDUCED OR INCREASED
150292 04-04

BENZODIAZEPINES: A STUDY OF THE RELATIONSHIP BETWEEN THEIR EFFECT ON CATECHOLAMINE TURNOVER RATE AND PENTYLENETETRAZOLE CONVULSIONS. (UNPUBLISHED PAPER).
152543 04-03

EFFECT OF SEVERAL BENZODIAZEPINES ON CONCENTRATIONS AND SPECIFIC ACTIVITIES OF CHOLINE AND ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
152546 04-03

THE EFFECTS OF BENZODIAZEPINES ON THE BEHAVIOUR OF MICE ON A HOLE-BOARD.
153102 04-04

AN EXAMINATION OF ACID BASE EQUILIBRIA OF 1,4 BENZODIAZEPINES BY SPECTROPHOTOMETRY.
155902 04-16

ANTIANXIETY ACTION OF BENZODIAZEPINES: DECREASE IN ACTIVITY OF SEROTONIN NEURONS IN THE PUNISHMENT SYSTEM.
158280 04-04

PREDICTORS OF RESPONSE TO BENZODIAZEPINES IN ANXIOUS OUTPATIENTS.
158286 04-14

ACTIVITY OF BENZODIAZEPINES ON AGGRESSIVE BEHAVIOR IN RATS AND MICE.
158287 04-04

THE EFFECTS OF BENZODIAZEPINES ON AGGRESSION: REDUCED OR INCREASED
158289 04-04

EFFECTS OF CHRONIC ADMINISTRATION OF BENZODIAZEPINES ON EPILEPTIC SEIZURES AND BRAIN ELECTRICAL ACTIVITY IN PAPIO-PAPIO.
158290 04-03

BENZODIAZEPINES IN THE TREATMENT OF ALCOHOL WITHDRAWAL STATES.
158298 04-11

SLEEP LABORATORY AND CLINICAL STUDIES OF THE EFFECTS OF BENZODIAZEPINES ON SLEEP: FLURAZEPAM, DIAZEPAM, CHLORDIAZEPOXIDE, AND RO-5-4200.
158299 04-14

BEHAVIORAL AND PSYCHOSOMATIC EFFECTS OF BENZODIAZEPINES: INTERACTIONS WITH OTHER DRUGS.
158301 04-14

INTERACTION OF BENZODIAZEPINES WITH WARFARIN IN MAN.
158302 04-13

INTERACTION OF BENZODIAZEPINES WITH ORAL ANTICOAGULANTS.
158303 04-14

THE BENZODIAZEPINES.
160462 04-17

CHEMISTRY OF 1,4 BENZODIAZEPINES AND SOME ASPECTS OF THE STRUCTURE-ACTIVITY RELATIONSHIP.
160463 04-01

PHARMACOLOGICAL ACTIVITY OF SOME BENZODIAZEPINES AND THEIR METABOLITES.
160464 04-05

PATHWAYS OF METABOLISM OF THE BENZODIAZEPINES.
160465 04-13

METABOLIC STUDIES ON BENZODIAZEPINES IN VARIOUS ANIMAL SPECIES.
160466 04-03

KINETICS OF GENERAL AND REGIONAL BRAIN DISTRIBUTION OF CLOSELY RELATED 7-CHLORO-1,4 BENZODIAZEPINES.
160468 04-03

SUBCELLULAR ACTIONS OF BENZODIAZEPINES.
160470 04-03

THE EFFECTS OF BENZODIAZEPINES, MEPROBAMATE, AND BARBITURATES ON CENTRAL MONOAMINE NEURONS.
160472 04-03

EFFECT OF BENZODIAZEPINES ON UPTAKE AND EFFLUX OF SEROTONIN IN HUMAN BLOOD PLATELETS IN VITRO.
160473 04-13

EFFECT OF BENZODIAZEPINES ON CARBOHYDRATE METABOLISM IN RAT BRAIN.
160476 04-03

PENTYLENETETRAZOL CONVULSIONS AND BRAIN CATECHOLAMINE TURNOVER RATE IN RATS AND MICE RECEIVING DIPHENYLHYDANTOIN AND BENZODIAZEPINES.
164834 04-03

BENZODIAZEPINES AND HUMAN SLEEP.
165642 04-14

BENZOMORPHAN
STUDIES ON THE EFFECT OF CYCLAZOCINE, A BENZOMORPHAN DERIVATIVE, ON THE SYMPATHETIC NERVOUS SYSTEM. (PH.D. DISSERTATION).
163534 04-03

BENZONAL
BENZONAL IN THE TREATMENT OF EPILEPTIC ATTACKS IN CHILDREN.
156566 04-11

BENZOTHIAZEPIN-2-ONE
DETERMINATION OF A BENZOTHIAZEPIN-2-ONE IN BLOOD BY GLC ELECTRON CAPTURE DETECTION.
150413 04-06

BETA-ADRENERGIC
PHARMACOKINETICS OF THE BETA-ADRENERGIC BLOCKER SOTALOL IN DOGS.
150409 04-03

ROLE OF BETA-ADRENERGIC RECEPTOR IN THE CONTROL OF SEROTONIN N-ACETYLTRANSFERASE IN RAT PINEAL. (UNPUBLISHED PAPER).
154368 04-03

THE EFFECT OF ALPHA-ADRENERGIC AND BETA-ADRENERGIC ANTAGONISTS ON THE SELF-STIMULATION PHENOMENON.
166787 04-04

BETA-ADRENOCEPTOR
FURTHER STUDIES ON THE ADRENERGIC NEURON BLOCKING ACTIVITY OF SOME BETA-ADRENOCEPTOR ANTAGONISTS AND GUANETHIDINE.
161141 04-03

BETA-HYDROXYLASE
INCREASE OF BRAIN LEVELS OF TRYPTOPHAN INDUCED BY INHIBITION OF DOPAMINE BETA-HYDROXYLASE (EC 1.14.2.1).
160230 04-01

BETA-PHENETHYLAMINE
CACTUS ALKALOIDS XV: BETA-PHENETHYLAMINE DERIVATIVES FROM CORYPHANTHA-MACROMERIS VAR. RUNYONII.
150411 04-01

BIAS
HOW ANTAGONISTIC CAN DOCTORS BIAS BE ON DRUG EFFECT? OXAZEPAM AS AN ANTIANXIETY AGENT.
160215 04-14

BIBLIOGRAPHY
A BIBLIOGRAPHY OF PAPERS FROM THE SWISS LITERATURE, 1970-1971.
166877 04-17

BIETASERPINE
STUDY ON THE ABSORPTION AND EXCRETION OF RESERPINE AND ITS DERIVATIVE, BIETASERPINE.
158514 04-03

BILIARY
BILIARY AND URINARY ELIMINATION OF METHADONE AND ITS METABOLITES IN THE RAT.
152098 04-03

BINDING
BINDING OF CYPROHEPTADINE-N-METHYL-14C BY HUMAN BLOOD PLATELETS: INHIBITION BY PHENOTHIAZINES AND TRICYCLIC ANTIDEPRESSANTS.
156647 04-13

PLASMA PROTEIN BINDING OF 7-HYDROXY-DELTA1-TETRAHYDROCANNABINOL: AN ACTIVE DELTA1-TETRAHYDROCANNABINOL METABOLITE.
156799 04-03

BINDING SITES FOR NOREPINEPHRINE IN THE BRAIN.
156877 04-03

SEROTONIN BINDING PROTEINS ISOLATED BY AFFINITY CHROMATOGRAPHY. (UNPUBLISHED PAPER).
158570 04-03

BIOAVAILABILITY
EXCESSIVE REACTION TO METHAQUALONE HCL DURING BIOAVAILABILITY STUDY.
166735 04-15

BIOAVALABILITY
BIOAVALABILITY OF METHAQUALONE.
166717 04-13

BIOCHEMICAL
BIOCHEMICAL AND PHARMACOLOGICAL ASPECTS OF PARKINSONISM.
151683 04-13

BIOCHEMICAL EFFECTS OF THE ANTICONVULSANTS TRIMETHADIONE, ETHOSUXIMIDE, AND CHLORDIAZEPOXIDE IN RAT BRAIN.
152087 04-03

BIOCHEMICAL OBSERVATIONS DURING A TRIAL OF INOSIPLEX IN SENILE DEMENTIA.
156134 04-09

BEHAVIOURAL AND BIOCHEMICAL INTERACTION BETWEEN CAFFEINE AND L-DOPA.
156757 04-04

BEHAVIORAL AND BIOCHEMICAL EFFECTS OF ALPHA-METHYLTYROSINE IN CATS.
157144 04-04

BIOCHEMICAL AND PHARMACOLOGICAL STUDY OF 2,5 DIMETHOXY-4-METHYLAMPHETAMINE (DOM, STP) AND ANALOGS. (PH.D. DISSERTATION).
159826 04-03

RELATIONSHIPS OF CHLORDIAZEPOXIDE BLOOD LEVELS TO PSYCHOLOGICAL AND BIOCHEMICAL RESPONSES.
160477 04-14

BEHAVIORAL AND BIOCHEMICAL EFFECTS OF CHRONIC ADMINISTRATION OF BROMIDE IN THE RAT.
163753 04-04

BIOCHEMISTRY
PHARMACOLOGY AND BIOCHEMISTRY OF FENFLURAMINE.
152067 04-03

BIOELECTRIC
THE ACTION OF NOVERIL ON THE BIOELECTRIC ACTIVITY OF THE BRAIN.
150744 04-09

BIOGENIC
BIOGENIC AMINE DEPLETING EFFECTS OF BENZIMIDAZOLE 5(6) DL-ALANINE.
150315 04-03

COMPARATIVE DATA FROM A STUDY OF THE METABOLISM OF BIOGENIC AMINES OF EPILEPTIC PATIENTS IN A PSYCHOTIC STATE.
151803 04-13

GENETIC PROGRAM OF BRAIN BIOGENIC AMINES AND AGGRESSIVE BEHAVIOR.
155244 04-03

BIOGENIC AMINES AND THEIR METABOLISM IN THE STUDY OF AGGRESSIVE BEHAVIOR IN RATS.
155248 04-04

COMPARISON OF THE BEHAVIORAL DEPRESSANT EFFECTS OF BIOGENIC AMINE DEPLETING AND NEUROLEPTIC AGENTS FOLLOWING VARIOUS 6-HYDROXYDOPAMINE TREATMENTS.
157140 04-04

THE ROLE OF BIOGENIC AMINES IN THE RESERPINE INDUCED ALTERATION OF MINIMAL ELECTROSHOCK SEIZURE THRESHOLDS IN THE MOUSE.
160639 04-03

D-LYSERGIC ACID DIETHYLAMIDE (LSD) -- EFFECT ON BIOGENIC AMINES EXCRETION IN MAN.
160802 04-13

INVOLVEMENT OF BIOGENIC AMINES IN MEMORY FORMATION: THE CENTRAL NERVOUS SYSTEM INDOLE AMINE INVOLVEMENT.
162272 04-03

SOME EFFECTS OF THE HALLUCINOGENIC DRUG 2,5 DIMETHOXY-4-METHYLAMPHETAMINE ON THE METABOLISM OF BIOGENIC AMINES IN THE RAT BRAIN.
163749 04-03

EVIDENCE FOR THE BIOGENIC FORMATION OF AMPHETAMINE DERIVATIVES FROM COMPONENTS OF NUTMEG.
165997 04-01

BRAIN BIOGENIC AMINES: DEPLETION BY CHRONIC DIELDRIN EXPOSURE.
166788 04-05

NEW INVESTIGATIONS INTO BIOGENIC AMINES (CEREBRAL OR CELLULAR LOCALIZATION, INFLUENCE OF VARIOUS CHEMICAL FACTORS).
167085 04-03

BIOLOGICAL
DETERMINATION OF TOTAL SALICYLATES, PHENACETIN AND/OR TOTAL N-ACETYL-P-AMINOPHENOL, AND CAFFEINE IN BIOLOGICAL SAMPLES AND ANALGESIC FORMULATIONS.
150410 04-01

BIOLOGICAL ASPECTS OF CROSS-NATIONAL DRUG STUDIES.
155266 04-17

ANALYSIS OF CANNABIS METABOLITES IN BIOLOGICAL FLUIDS.
160748 04-03

BIOLOGICAL MECHANISMS UNDERLYING THE DEVELOPMENT OF BEHAVIORAL TOLERANCE TO DIISOPROPYLFLUOROPHOSPHATE. (PH.D. DISSERTATION).
163535 04-03

BIOLOGICAL ACTIVITY OF PENTOBARBITAL METABOLITES.
164240 04-02

BIOSYNTHESIS
BIOSYNTHESIS OF RESERPINE FROM CARBON-14 DIOXIDE.
156868 04-01

BIOSYNTHETIC
EEG AND BEHAVIORAL EFFECTS OF NATURAL, SYNTHETIC AND BIOSYNTHETIC CANNABINOIDS.
158004 04-04

BIPHASIC
BIPHASIC ACTION OF 5-HYDROXYTRYPTAMINE INHIBITOR ON FENFLURAMINE INDUCED ANOREXIA.
156804 04-03

BISNORMACROMERINE
MACROMERINE, NORMACROMERINE AND BISNORMACROMERINE: NONPSYCHOACTIVE METHYLATED DERIVATIVES OF NOREPINEPHRINE. 150298 04-04

BLENDS
LONG-ACTING MORPHINE ANTAGONISTS -- POLYMER BLENDS. 160750 04-03

BLOCK
FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION. 150424 04-03

BLOCKADE
BLOCKADE OF D-AMPHETAMINE INDUCED STEREOTYPED BEHAVIOR BY BULBOCAPNINE. 150405 04-04
EFFECTS OF BETA ADRENERGIC BLOCKADE WITH SOTALOL IN CHRONIC ANXIETY. 151162 04-10
DOPAMINE RECEPTOR BLOCKADE -- A CENTRAL ACTION OF CHLORPROMAZINE ON STRIATAL NEURONS. 152439 04-13
BLOCKADE OF THE CENTRAL EFFECTS OF D-AMPHETAMINE SULFATE BY AMANTADINE HYDROCHLORIDE. 156819 04-03
BLOCKADE BY BUFOTENIDINE OF THE SEROTONIN AND NARCOTIC ANALGESICS INDUCED CONTRACTION OF DOG INTESTINE IN VIVO. 156825 04-03
BETA BLOCKADE IN THE TREATMENT OF TRICYCLIC ANTIDEPRESSANT OVERDOSAGE. 159585 04-05

BLOCKAGE
ATTENUATION OF HYPOTHERMIC RETROGRADE AMNESIA PRODUCED BY PHARMACOLOGIC BLOCKAGE OF BRAIN SEIZURES. 157125 04-04

BLOCKER
PHARMACOKINETICS OF THE BETA-ADRENERGIC BLOCKER SOTALOL IN DOGS. 150409 04-03

BLOCKING
ACCUMULATION, STORAGE AND RELEASE OF ADRENERGIC NEURON BLOCKING AGENTS AND RELATED DRUGS BY HUMAN PLATELETS. 150316 04-03
BLOCKING EFFECT OF ALPHA-METHYLTYROSINE ON AMPHETAMINE BASED REINFORCEMENT. 151630 04-04
NEUROMUSCULAR BLOCKING DRUGS AND THE HEART RATE RESPONSE TO DIRECT PREGANGLIONIC STIMULATION OF THE SYMPATHETICS AND PARASYMPATHETICS IN THE CAT. 153171 04-03
CLASSICAL AVERSIVE CONDITIONING IN CATS UNDER VARIOUS NEUROMUSCULAR BLOCKING DRUGS. 153217 04-04
FURTHER STUDIES ON THE ADRENERGIC NEURON BLOCKING ACTIVITY OF SOME BETA-ADRENOCEPTOR ANTAGONISTS AND GUANETHIDINE. 161141 04-03
THE EFFECT OF SOME SUBSTANCES OF THE PHENOTHIAZINE SERIES AND OF ALPHA-ADRENERGIC BLOCKING AGENTS ON SPINAL CORD ACTIVITY UNDER CONDITIONS OF DISRUPTION OF INHIBITORY MECHANISMS BY TETANUS TOXIN. 162921 04-03

BLOOD
DETERMINATION OF A BENZOTHIAZEPIN-2-ONE IN BLOOD BY GLC ELECTRON CAPTURE DETECTION. 150413 04-06
BLOOD HISTAMINE, BASOPHIL COUNTS, AND TRACE ELEMENTS IN THE SCHIZOPHRENIAS. 150964 04-08
CHLORPROMAZINE HYDROXYLAMINES IN RED BLOOD CELLS AS MAJOR METABOLITES OF CHLORPROMAZINE IN MAN. 151633 04-13
PATTERN OF SYMPATHETIC NERVOUS SYSTEM (SNS) DISCHARGE AND THE BLOOD PRESSURE RESPONSE TO FOOTSHOCK IN THE RAT. 153202 04-03
THE RELATIONSHIP BETWEEN BLOOD LEVELS OF DIFFERENT FORMS OF BUTAPERAZINE AND CLINICAL RESPONSE. 155055 04-08
BINDING OF CYPROHEPTADINE-N-METHYL-14C BY HUMAN BLOOD PLATELETS: INHIBITION BY PHENOTHIAZINES AND TRICYCLIC ANTIDEPRESSANTS. 156647 04-13
QUANTITATIVE DETERMINATION OF DIAZEPAM IN BLOOD BY RADIOIMMUNOASSAY. 159370 04-06
EFFECT OF BENZODIAZEPINES ON UPTAKE AND EFFLUX OF SEROTONIN IN HUMAN BLOOD PLATELETS IN VITRO. 160473 04-13
RELATIONSHIPS OF CHLORDIAZEPOXIDE BLOOD LEVELS TO PSYCHOLOGICAL AND BIOCHEMICAL RESPONSES. 160477 04-14
A DIMETHYLTRYPTAMINE FORMING ENZYME IN HUMAN BLOOD. 161892 04-17
EFFECT OF LITHIUM ON THE BLOOD AND INTESTINAL SEROTONIN CONTENTS OF RATS. 163019 04-05
EFFECTS OF DIPHENYLHYDANTOIN ON LOCAL CEREBRAL BLOOD FLOW. (UNPUBLISHED PAPER) 164809 04-03
INCREASED BLOOD ETHANOL ELIMINATION IN RATS TREATED WITH HALOTHANE. 165995 04-03
POTENTIATING EFFECT OF CHLORPROMAZINE ON GLYCERYL GUAIACOLATE ETHER INDUCED HEMOLYSIS OF RAT, DOG AND HUMAN BLOOD IN VITRO. 166790 04-13

BLOOD-BRAIN
BLOOD-BRAIN BARRIER TO CARBIDOPA (MK-486) AND RO-4-4602, PERIPHERAL DOPA DECARBOXYLASE INHIBITORS. 155906 04-03
ANIMAL MODELS FOR AN ENZYMIC BLOOD-BRAIN BARRIER MECHANISM FOR THERAPEUTICALLY ADMINISTERED L-DOPA. 159566 04-03

BODY
THE EFFECTS OF CHRONIC FENFLURAMINE ADMINISTRATION ON BEHAVIOUR AND BODY WEIGHT. 163759 04-04
EFFECTS OF AMPHETAMINE AND BARBITURATE ON BODY EXPERIENCE. 165416 04-14

BORDERS
THE EFFECT OF CHOLERA TOXIN ON THE PHOSPHORYLATION OF PROTEIN IN EPITHELIAL CELLS AND THEIR BRUSH BORDERS. 156879 04-03

BOROHYDRIDE
UREIDE RING SCISSION OF PHENOBARBITAL BY SODIUM BOROHYDRIDE. 150418 04-01

BOUND
EFFECTS OF DESIPRAMINE AND RESERPINE ON FREE AND BOUND ACETYLCHOLINE IN RAT BRAIN. 156807 04-03

BOVINE
INHIBITION OF BOVINE BRAIN ALDEHYDE REDUCTASE BY ANTICONVULSANT COMPOUNDS IN VITRO. 166699 04-03

BRAIN
BRAIN CATECHOLAMINES AND THEIR METABOLITES IN PARKINSONIAN PATIENTS: TREATMENT WITH LEVODOPA ALONE OR COMBINED WITH A DECARBOXYLASE INHIBITOR. 150218 04-13
EFFECTS OF CHLORPROMAZINE AND PHENOBARBITAL ON RAT LIVER AND BRAIN OXIDATIVE N-OXIDASE AND N-DEMETHYLASE ACTIVITIES. 150399 04-03
SIMULTANEOUS MEASUREMENT OF TYROSINE AND TRYPTOPHAN HYDROXYLASE ACTIVITIES IN BRAIN IN VIVO USING AN INHIBITOR OF THE AROMATIC AMINO ACID DECARBOXYLASE. 150402 04-03
ORAL MEDICATIONS FOR MINIMAL BRAIN DYSFUNCTION IN CHILDREN. 150550 04-11
STUDIES ON KININ-LIKE SUBSTANCES IN BRAIN. 150581 04-03
DISTRIBUTION OF SOME STRUCTURALLY RELATED PHARMACOLOGICAL AGENTS IN RAT BRAIN. 150584 04-03
BEHAVIOURAL AND PHARMACOLOGICAL STUDIES ON MORPHINE INDUCED EXCITATION OF RATS. POSSIBLE RELATION TO BRAIN CATECHOLAMINES. 150667 04-04
THE LONG-TERM EFFECT OF PERPHENAZINE ENANTHATE ON THE RAT BRAIN. SOME METABOLIC AND ANATOMICAL OBSERVATIONS. 150668 04-03
THE ACTION OF NOVERIL ON THE BIOELECTRIC ACTIVITY OF THE BRAIN. 150744 04-09
CATECHOLAMINE CONCENTRATIONS IN DISCRETE AREAS OF THE RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE. 151629 04-03
INHIBITION OF BRAIN GLUTAMATE DEHYDROGENASE BY A METABOLITE OF CYCLOHEXIMIDE AND ITS RELEVANCE FOR THE MECHANISM OF AMMONIA FORMATION IN BRAIN SLICES. (UNPUBLISHED PAPER). 151650 04-03
THE POSSIBLE ROLE OF TRYPTAMINE IN BRAIN FUNCTION AND ITS RELATIONSHIP TO THE ACTIONS OF LSD-LIKE HALLUCINOGENS. (UNPUBLISHED PAPER). 151656 04-03
ACTIVITY OF BRAIN PHENOLSULFOTRANSFERASE FOR THE CATECHOLAMINES AND THEIR METABOLITES. (UNPUBLISHED PAPER). 151657 04-03

CONTRIBUTIONS OF DIFFERENTIAL HOUSING TO BRAIN DEVELOPMENT: SOME IMPLICATIONS FOR SLEEP BEHAVIOR.
151705 04-03

EFFECT OF PENTOBARBITAL ON AMINO ACID AND UREA FLUX IN THE ISOLATED DOG BRAIN.
151733 04-03

A NOTE ON THE USE OF ANTICOAGULANT THERAPY IN CHRONIC BRAIN SYNDROME.
152030 04-11

EFFECTS OF ESTROGEN AND PROGESTERONE ON BRAIN MONOAMINES: INTERACTIONS WITH PSYCHOTROPIC DRUGS.
152045 04-03

BIOCHEMICAL EFFECTS OF THE ANTICONVULSANTS TRIMETHADIONE, ETHOSUXIMIDE, AND CHLORDIAZEPOXIDE IN RAT BRAIN.
152087 04-03

EFFECT OF NARCOTIC AGENTS ON BRAIN METABOLISM.
152196 04-03

THE EFFECTS OF SPREADING DEPRESSION ON PENICILLIN INDUCED EPILEPTIFORM ACTIVITY IN RAT BRAIN.
152438 04-05

EFFECT OF SEVERAL BENZODIAZEPINES ON CONCENTRATIONS AND SPECIFIC ACTIVITIES OF CHOLINE AND ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
152546 04-03

ENHANCEMENT OF BRAIN L-DOPA CONCENTRATION WITH ALPHA-CHYMOTRYPSIN.
152870 04-03

GILLES-DE-LA-TOURETTES DISEASE AND MINIMAL BRAIN DYSFUNCTION: AMPHETAMINE ISOMERS REVEAL CATECHOLAMINE CORRELATES IN AN AFFECTED PATIENT.
153097 04-11

ORGANIC BRAIN SYNDROME DURING LITHIUM CARBONATE TREATMENT.
153271 04-15

EFFECT OF LITHIUM ON BRAIN DOPAMINE.
155210 04-03

DRUG INTERACTION -- EFFECT OF CHLORPROMAZINE ON THE DISPOSITION OF 8-14C-MESCALINE IN FETAL AND MATERNAL BRAIN AND LIVER IN PREGNANT MOUSE.
155221 04-03

GENETIC PROGRAM OF BRAIN BIOGENIC AMINES AND AGGRESSIVE BEHAVIOR.
155244 04-03

EFFECT OF DESMETHYLIMIPRAMINE ON ACETYLCHOLINE UPTAKE BY SLICES OF RAT BRAIN CORTEX.
155494 04-03

INHIBITION OF BRAIN DOPAMINE-BETA-HYDROXYLASE ACTIVITY BY METHIMAZOLE.
156322 04-03

NEUROCHEMICAL TERATOLOGY: 5-HYDROXYINDOLE CONCENTRATIONS IN DISCRETE AREAS OF RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
156751 04-03

EFFECTS OF DESIPRAMINE AND RESERPINE ON FREE AND BOUND ACETYLCHOLINE IN RAT BRAIN.
156807 04-03

TRICYCLIC ANTIDEPRESSANTS: ACTION ON SYNAPTOSOMAL ACETYLCHOLINESTERASE AND ATPASE IN THE BRAIN OF GUINEA-PIGS AND SUBCELLULAR DISTRIBUTION.
156813 04-03

CORRELATION BETWEEN BRAIN DOPAMINE LEVELS AND L-DOPA ACTIVITY IN ANTIPARKINSON TESTS.
156823 04-06

BINDING SITES FOR NOREPINEPHRINE IN THE BRAIN.
156877 04-03

NORFENFLURAMINE AND SEROTONIN TURNOVER RATE IN THE RAT BRAIN.
157000 04-03

IN VITRO INHIBITORY EFFECTS OF NARCOTIC ANALGESICS AND OTHER PSYCHOTROPIC DRUGS ON THE ACTIVE UPTAKE OF NOREPINEPHRINE IN MOUSE BRAIN TISSUE.
157063 04-03

GROWTH AND BEHAVIORAL CHANGES IN DEVELOPING RATS TREATED INTRACISTERNALLY WITH 6-HYDROXYDOPAMINE: EVIDENCE FOR INVOLVEMENT OF BRAIN DOPAMINE.
157117 04-03

ATTENUATION OF HYPOTHERMIC RETROGRADE AMNESIA PRODUCED BY PHARMACOLOGIC BLOCKAGE OF BRAIN SEIZURES.
157125 04-04

LOCALIZATION IN BRAIN PARTICULATE FRACTIONS OF NARCOTIC ANALGESIC DRUGS ADMINISTERED INTRACISTERNALLY TO RATS.
157185 04-03

EFFECTS OF ALPHA-METHYLTYROSINE ON REM SLEEP AND BRAIN AMINE LEVELS IN THE CAT.
157497 04-03

ON THE REGULATION OF TRYPTOPHAN HYDROXYLASE IN BRAIN. (UNPUBLISHED PAPER).
158182 04-03

EFFECTS OF CHRONIC ADMINISTRATION OF BENZODIAZEPINES ON EPILEPTIC SEIZURES AND BRAIN ELECTRICAL ACTIVITY IN PAPIO-PAPIO.
158290 04-03

INVOLVEMENT OF BRAIN CHOLINERGIC MECHANISMS IN THE ACTION OF CHLORPROMAZINE. (UNPUBLISHED PAPER).
158316 04-03

RELATIONSHIP BETWEEN MORPHINE AND CANDIDATE NEUROHUMORAL TRANSMITTERS IN THE BRAIN (REPORT 7).
158484 04-03

EFFECTS OF L-DOPA AND RESERPINE ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158495 04-04

EFFECTS OF L-DOPA AND DDC ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158496 04-04

EFFECTS OF LICL ON AGGRESSIVE BEHAVIOUR AND BRAIN AMINES IN MICE.
158498 04-04

HYPNOTIC EFFECT OF 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA) IN EXPERIMENTALLY INDUCED INSOMNIA AND BRAIN SEROTONIN IN RATS.
158504 04-04

ELECTROPHYSIOLOGICAL STUDIES ON ACTION OF PSYCHOTROPIC DRUGS IN RELATION TO BRAIN MONOAMINES.
158505 04-03

EFFECT OF AMANTADINE ON SEROTONIN METABOLISM IN RAT BRAIN.
158506 04-03

THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03

EFFECT OF XANTHINOL NICOTINATE ON METABOLISM OF BRAIN CYCLIC AMP AND METABOLISM IN ELECTRICALLY STIMULATED CEREBRAL TISSUE.
158511 04-03

INHIBITORY EFFECT OF METHYLXANTHINES ON THE ADENOSINE STIMULATED FORMATION OF CYCLIC AMP IN BRAIN SLICES.
158512 04-03

UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE.
158771 04-03

THE NOOTROPIC APPROACH TO THE PHARMACOLOGY OF THE INTEGRATIVE ACTIVITY OF THE BRAIN.
159396 04-07

SEROTONIN METABOLISM IN RAT BRAIN AFTER SURGICAL DIVERSION OF THE PORTAL VENOUS CIRCULATION.
159449 04-03

ROLE OF BRAIN 5-HYDROXYTRYPTAMINE IN AUDIOGENIC SEIZURE IN THE RAT.
159565 04-03

STUDIES ON POSSIBLE CORRELATIONS BETWEEN CHOLINESTERASE LEVELS IN MOUSE BRAIN AND BEHAVIOR. (PH.D. DISSERTATION).
159827 04-03

BRAIN LESIONS ON THE MOUSE FETUS CAUSED BY MONO SODIUM GLUTAMATE (SECOND REPORT).
160038 04-05

EFFECT OF CHLORPROMAZINE ON 3H-PHENAZINE METHOSULFATE UPTAKE INTO VARIOUS REGIONS OF RAT BRAIN AND INTO SUBCELLULAR FRACTIONS OF BRAIN AND LIVER (IN VITRO).
160202 04-03

THE EFFECT OF PHENOBARBITONE ANESTHESIA UPON SOME ORGANIC PHOSPHATES, GLYCOLYTIC METABOLITES AND CITRIC ACID CYCLE ASSOCIATED INTERMEDIATES OF THE RAT BRAIN.
160226 04-03

INCREASE OF BRAIN LEVELS OF TRYPTOPHAN INDUCED BY INHIBITION OF DOPAMINE BETA-HYDROXYLASE (EC 1.14.2.1).
160230 04-01

THE METABOLISM OF INDOLEALKYLAMINES BY TYPE A AND B MONOAMINE OXIDASE OF BRAIN. (UNPUBLISHED PAPER).
160457 04-03

KINETICS OF GENERAL AND REGIONAL BRAIN DISTRIBUTION OF CLOSELY RELATED 7-CHLORO-1,4 BENZODIAZEPINES.
160468 04-03

THE INTERACTION OF CHLORDIAZEPOXIDE, DIAZEPAM, AND NITRAZEPAM WITH CATECHOLAMINES AND HISTAMINE IN REGIONS OF THE RAT BRAIN.
160471 04-03

INCREASE IN MOUSE AND RAT BRAIN ACETYLCHOLINE LEVELS BY DIAZEPAM.
160475 04-03

EFFECT OF BENZODIAZEPINES ON CARBOHYDRATE METABOLISM IN RAT BRAIN.
160476 04-03

KINETICS OF THE DISTRIBUTION OF 14C-DIAZEPAM AND ITS METABOLITES IN VARIOUS AREAS OF CAT BRAIN.
160478 04-03
EFFECTS OF LYSERGIC ACID DIETHYLAMIDE ON THE UPTAKE AND RETENTION OF BRAIN 5-HYDROXYTRYPTAMINE IN VIVO AND IN VITRO.
160646 04-03
EFFECT OF CHLORIMIPRAMINE ON THE METABOLISM OF 5-HYDROXYTRYPTAMINE IN THE RAT BRAIN.
160647 04-03
THE EFFECT OF HEXAFLUORODIETHYL ETHER (FLUROTHYL) ON THE METABOLISM OF RAT BRAIN AMINO ACIDS LABELLED BY (U-14C)GLUCOSE.
160767 04-03
THE EFFECT OF RESERPINE, CHLORPROMAZINE AND NEMBUTAL ON LEVELS OF DIPEPTIDES IN RAT BRAIN AND MUSCLE.
160772 04-03
DIFFERENTIAL EFFECTS ON MOUSE BRAIN CATECHOLAMINE TURNOVER OF CHLORPROMAZINE, TRIFLUOPERAZINE AND CLOSELY-RELATED NOT-TRANQUILLIZING ANALOGUES.
161145 04-13
IN VIVO EFFECTS OF AMPHETAMINE ON METABOLITES AND METABOLIC RATE IN BRAIN.
161379 04-03
AN ASSAY PROCEDURE FOR TRYPTAMINE IN BRAIN AND SPINAL CORD USING ITS 3H DANSYL DERIVATIVE.
161380 04-06
THE PREDICTION OF BRAIN LITHIUM CONCENTRATIONS FROM PLASMA OR ERYTHROCYTE MEASURES.
161731 04-03
SPONTANEOUS RELEASE AND DURING METRAZOL CONVULSIONS OF 5-HYDROXYTRYPTAMINE IN SOME BRAIN REGIONS OF CONSCIOUS CAT.
162056 04-03
EFFECT OF VARIOUS SEDATIVE DRUGS ON LEVELS OF CHOLINE AND ACETYLCHOLINE AND ON TURNOVER RATE OF ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
162398 04-03
VASOCONSTRICTION BY NORADRENALINE IN THE BRAIN.
162437 04-03
COMPARISON OF EFFECTS OF NORADRENALINE AND HISTAMINE WITH CYCLIC AMP ON BRAIN STEM NEURONES.
162893 04-03
EFFECT OF TWO ACTH ANALOGS ON NORADRENALINE METABOLISM IN RAT BRAIN.
162895 04-03
INTERACTION OF DIPHENYLHYDANTONIN-4-14C WITH SUBCELLULAR FRACTIONS OF RAT BRAIN.
162949 04-03
THE SUBCELLULAR DISTRIBUTION OF LYSERGIC ACID DIETHYLAMIDE IN THE RAT BRAIN.
162956 04-03
EFFECT OF N6O2-DIBUTYRYL CYCLIC 3,5 ADENOSINE MONOPHOSPHATE ON THE PINOCYTOSIS OF BRAIN CAPILLARIES OF MICE.
162960 04-03
SEROTONIN RECEPTORS OF THE RAT BRAIN, THEIR INTERACTIONS WITH METHYSERGIDE. (PH.D. DISSERTATION).
163029 04-03
EFFECT OF LITHIUM ON BRAIN ACONITASE ACTIVITY.
163630 04-03
SOME EFFECTS OF THE HALLUCINOGENIC DRUG 2,5 DIMETHOXY-4-METHYLAMPHETAMINE ON THE METABOLISM OF BIOGENIC AMINES IN THE RAT BRAIN.
163749 04-03
SOME AGONISTIC ACTIONS OF THE MORPHINE ANTAGONIST LEVALLORPHAN ON BEHAVIOR AND BRAIN MONOAMINES IN THE RAT.
163757 04-03
A COMPARISON OF THE EFFECTS OF D-AMPHETAMINE AND MORPHINE UPON THE LOCOMOTOR ACTIVITY OF MICE TREATED WITH DRUGS WHICH ALTER BRAIN CATECHOLAMINE CONTENT.
163769 04-04
DECREASED ANTINOCICEPTIVE ACTIVITY OF MORPHINE IN RATS PRETREATED INTRAVENTRICULARLY WITH 5,6 DIHYDROXYTRYPTAMINE, A LONG-LASTING SELECTIVE DEPLETOR OF BRAIN SEROTONIN.
163775 04-03
THE EFFECTS OF CHRONIC CANNABIS TREATMENT ON THE AGGRESSIVE BEHAVIOR AND BRAIN 5-HYDROXYTRYPTAMINE LEVELS OF RATS WITH DIFFERENT TEMPERAMENTS.
163778 04-04
EFFECT OF SOME LIPID SOLUBLE DERIVATIVES OF AMPHETAMINE ON AMPHETAMINE LEVELS IN RAT BRAIN.
163804 04-03
PENTYLENETETRAZOL CONVULSIONS AND BRAIN CATECHOLAMINE TURNOVER RATE IN RATS AND MICE RECEIVING DIPHENYLHYDANTOIN AND BENZODIAZEPINES.
164834 04-03
ESTIMATION OF BRAIN AMINE METABOLISM IN AFFECTIVE ILLNESS: CEREBROSPINAL FLUID STUDIES UTILIZING PROBENECID.
164871 04-11
EFFECT OF SULPIRIDE ON OXYGEN UPTAKE BY RATS BRAIN TISSUE IN VITRO.
165411 04-03
EFFECTS OF NEUROHUMORAL AND ADRENERGIC AGENTS ON CYCLIC AMP LEVELS IN VARIOUS AREAS OF THE RAT BRAIN IN VITRO. (UNPUBLISHED PAPER).
165682 04-03
INFLUENCE OF AMPHETAMINES, PROTRIPTYLINE AND PARGYLINE ON THE TIME COURSE OF THE NOREPINEPHRINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RAT BRAIN.
165790 04-03
EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF DESMETHYLIMIPRAMINE ON THE CONTENT OF NOREPINEPHRINE AND OTHER MONOAMINES IN THE RAT BRAIN.
166027 04-03
INHIBITORY EFFECT OF GEROVITAL-H3 AND PROCAINE ON MONOAMINE OXIDASE IN RAT BRAIN, LIVER, HEART AND PLATELETS.
166386 04-11
BRAIN AMINE RELEASE DURING SUPPRESSED BEHAVIOR.
166530 04-03
EFFECT OF CLONIDINE ON THE 5-HYDROXYTRYPTAMINE AND 5-HYDROXYINDOLEACETIC ACID BRAIN LEVELS.
166695 04-03
EFFECT OF D-AMPHETAMINE ON THE TURNOVER, SYNTHESIS AND METABOLISM OF BRAIN PHOSPHATIDYLCHOLINE.
166697 04-03
MODIFICATION OF SEROTONIN METABOLISM IN RAT BRAIN AFTER ACUTE OR CHRONIC ADMINISTRATION OF MORPHINE.
166698 04-03
INHIBITION OF BOVINE BRAIN ALDEHYDE REDUCTASE BY ANTICONVULSANT COMPOUNDS IN VITRO.
166699 04-03
BRAIN BIOGENIC AMINES: DEPLETION BY CHRONIC DIELDRIN EXPOSURE.
166788 04-05
SERUM AND BRAIN CONCENTRATIONS OF PENTAZOCINE IN RELATION TO ANALGESIC ACTIVITY IN MICE.
167018 04-03
EFFECT OF MORPHINE ON THE RNA AND ATP CONCENTRATION OF BRAIN STRUCTURES OF THE RAT.
167043 04-03

BRAIN-DAMAGED
KETAMINE ANESTHESIA IN BRAIN-DAMAGED EPILEPTICS.
152131 04-13
A PERMANENT CHANGE IN CONVULSIVE THRESHOLD IN NORMAL AND BRAIN-DAMAGED RATS WITH REPEATED SMALL DOSES OF PENTYLENETETRAZOL.
152437 04-03

BRAINS
EFFECTS OF D-AMPHETAMINE ON THE INCORPORATION OF CARBON ATOMS OF D-MANNOSE INTO THE BRAINS AND SERA OF DIFFERENTIALLY HOUSED MICE: SHORT-TERM REVERSIBILITY OF THESE EFFECTS.
163779 04-03

BREAST-FED
LITHIUM AND PREGNANCY - III, LITHIUM INGESTION BY CHILDREN BREAST-FED BY WOMEN ON LITHIUM TREATMENT.
155043 04-15

BROMIDE
BEHAVIORAL AND BIOCHEMICAL EFFECTS OF CHRONIC ADMINISTRATION OF BROMIDE IN THE RAT.
163753 04-04

BRONCHIAL
SINGLE DOSE EFFECT OF MARIHUANA SMOKE: BRONCHIAL DYNAMICS AND RESPIRATORY CENTER SENSITIVITY IN NORMAL SUBJECTS.
150620 04-13

BRUCELLOSIS
PSYCHOSIS WITH CHRONIC BRUCELLOSIS.
159345 04-14

BRUSH
THE EFFECT OF CHOLERA TOXIN ON THE PHOSPHORYLATION OF PROTEIN IN EPITHELIAL CELLS AND THEIR BRUSH BORDERS.
156879 04-03

BUFOTENIDINE
BLOCKADE BY BUFOTENIDINE OF THE SEROTONIN AND NARCOTIC ANALGESICS INDUCED CONTRACTION OF DOG INTESTINE IN VIVO.
156825 04-03

BULBOCAPNINE
BLOCKADE OF D-AMPHETAMINE INDUCED STEREOTYPED BEHAVIOR BY BULBOCAPNINE.
150405 04-04
ANALYSIS OF THE EFFECTS OF APOMORPHINE AND BULBOCAPNINE IN RELATION TO THE PROPOSED DOPAMINE RECEPTOR.
161142 04-03

BUNDLE
INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04

MORPHINE DEPENDENCE IN RATS WITH MEDIAL FOREBRAIN BUNDLE LESIONS.
157152 04-03

BUTAPERAZINE
THE RELATIONSHIP BETWEEN BLOOD LEVELS OF DIFFERENT FORMS OF BUTAPERAZINE AND CLINICAL RESPONSE.
155055 04-08

C-TYPE
THE EFFECT OF GEROVITAL-H3 ON THE GROWTH RATE OF AGED MOUSE EMBRYO FIBROBLASTS AND ON THE PATHOGENESIS INDUCED BY A RNA C-TYPE VIRUS.
166387 04-03

CACTI
SEARCH FOR NEW HALLUCINOGENIC CACTI.
156875 04-01

CACTUS
CACTUS ALKALOIDS XV: BETA-PHENETHYLAMINE DERIVATIVES FROM CORYPHANTHA-MACROMERIS VAR. RUNYONII.
150411 04-01

CACTUS ALKALOIDS XVI: ISOLATION AND IDENTIFICATION OF ALKALOIDS IN CORYPHANTHA-RAMILLOSA.
150412 04-01

CAFFEINE
PSYCHOPHARMACOLOGICAL ASPECTS OF COFFEE AND OF CAFFEINE.
149749 04-14

DETERMINATION OF TOTAL SALICYLATES, PHENACETIN AND/OR TOTAL N-ACETYL-P-AMINOPHENOL, AND CAFFEINE IN BIOLOGICAL SAMPLES AND ANALGESIC FORMULATIONS.
150410 04-01

BEHAVIOURAL AND BIOCHEMICAL INTERACTION BETWEEN CAFFEINE AND L-DOPA.
156757 04-04

SELF-ADMINISTRATION OF ACETYLSALICYLIC ACID AND COMBINATIONS WITH CODEINE AND CAFFEINE IN RHESUS MONKEYS.
157064 04-04

COMPARISON OF BEHAVIORAL EFFECTS OF NICOTINE, D-AMPHETAMINE, CAFFEINE AND DIMETHYLHEPTYL TETRAHYDROCANNABINOL IN SQUIRREL MONKEYS.
163750 04-04

CANCER
LSD ASSISTED PSYCHOTHERAPY IN PATIENTS WITH TERMINAL CANCER.
161385 04-11

CANDIDATE
RELATIONSHIP BETWEEN MORPHINE AND CANDIDATE NEUROHUMORAL TRANSMITTERS IN THE BRAIN (REPORT 7).
158484 04-03

CANNABICHROMENE
CONSTITUENTS OF CANNABIS-SATIVA L. III: CLEAR AND DISCRETE SEPARATION OF CANNABIDIOL AND CANNABICHROMENE.
157301 04-17

CANNABIDIOL
EFFECTS OF CANNABIDIOL AND OF DIPHENYLHYDANTOIN ON THE HIPPOCAMPUS AND ON LEARNING.
157145 04-04

CONSTITUENTS OF CANNABIS-SATIVA L. III: CLEAR AND DISCRETE SEPARATION OF CANNABIDIOL AND CANNABICHROMENE.
157301 04-17

CANNABIDOL
TWO CANNABIDOL METABOLITES FORMED BY RAT LIVER.
156801 04-03

CANNABINOID
CANNABINOID EFFECTS ON LIVER GLYCOGEN STORES.
156321 04-03

CANNABINOIDS
EEG AND BEHAVIORAL EFFECTS OF NATURAL, SYNTHETIC AND BIOSYNTHETIC CANNABINOIDS.
158004 04-04

METABOLISM AND DISTRIBUTION OF CANNABINOIDS IN RATS AFTER DIFFERENT METHODS OF ADMINISTRATION.
160198 04-03

INTERACTIONS OF SEVERAL CANNABINOIDS WITH THE HEPATIC DRUG METABOLIZING SYSTEM.
166689 04-03

CANNABIS
CANNABIS AND TEMPORAL DISINTEGRATION IN EXPERIENCED AND NAIVE SUBJECTS.
149649 04-14

CANNABIS AND THE CARDIOVASCULAR SYSTEM.
154661 04-15

QUANTITATION OF DELTA1-TETRAHYDROCANNABINOL IN PLASMA FROM CANNABIS SMOKERS.
158770 04-16

ANALYSIS OF CANNABIS METABOLITES IN BIOLOGICAL FLUIDS.
160748 04-03

EEG, HEART RATE AND MOOD CHANGE (HIGH) AFTER CANNABIS.
163747 04-13

CANNABIS AND ALCOHOL: EFFECTS ON ESTIMATION OF TIME AND DISTANCE.
163777 04-14

THE EFFECTS OF CHRONIC CANNABIS TREATMENT ON THE AGGRESSIVE BEHAVIOR AND BRAIN 5-HYDROXYTRYPTAMINE LEVELS OF RATS WITH DIFFERENT TEMPERAMENTS.
163778 04-04

CANNABIS-SATIVA
CANNABIS-SATIVA L. (MARIJUANA) II: STANDARDIZED AND RELIABLE MICROSCOPIC METHOD FOR DETECTION AND IDENTIFICATION OF MARIJUANA.
150419 04-01

CONSTITUENTS OF CANNABIS-SATIVA L. III: CLEAR AND DISCRETE SEPARATION OF CANNABIDIOL AND CANNABICHROMENE.
157301 04-17

EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF CANNABIS-SATIVA EXTRACT ON THE MOUSE KILLING BEHAVIOR OF RATS.
159568 04-04

CAPACITY
EFFECT OF PHENOBARBITAL INDUCTION ON GALACTOSE ELIMINATION CAPACITY IN THE RAT.
160799 04-03

CAPILLARIES
EFFECT OF N602-DIBUTYRYL CYCLIC 3,5 ADENOSINE MONOPHOSPHATE ON THE PINOCYTOSIS OF BRAIN CAPILLARIES OF MICE.
162960 04-03

CAPSULES
QUANTITATIVE DETERMINATION OF MORPHINE IN POPPY CAPSULES BY DIFFERENTIAL SPECTROPHOTOMETRY.
150416 04-01

ON ALKALOIDS. XXV. MINOR ALKALOIDS OF POPPY CAPSULES.
167017 04-01

CAPTURE
DETERMINATION OF A BENZOTHIAZEPIN-2-ONE IN BLOOD BY GLC ELECTRON CAPTURE DETECTION.
150413 04-06

CARBACHOLINE
ACTION OF CARBAMAZEPINE (TEGRETOL) AND APHENDIONE ON REACTIONS PROVOKED BY INTRAAMYGDALOID ADMINISTRATION OF CARBACHOLINE TO RABBITS.
151815 04-04

CARBACOL
THE EFFECTS OF HYPOTHALAMIC IMPLANTS OF ALDOSTERONE, ANGIOTENSIN II, CARBACOL, NOREPINEPHRINE, AND NACL ON WATER AND NACL INTAKE IN NORMAL AND ADRENALECTOMIZED RATS.
159391 04-04

CARBAMAZEPINE
CARBAMAZEPINE (TEGRETOL) IN THE TREATMENT OF DELIRIUM TREMENS.
151395 04-11

ACTION OF CARBAMAZEPINE (TEGRETOL) AND APHENDIONE ON REACTIONS PROVOKED BY INTRAAMYGDALOID ADMINISTRATION OF CARBACHOLINE TO RABBITS.
151815 04-04

WATER INTOXICATION DURING CARBAMAZEPINE TREATMENT.
162719 04-13

CARBIDOPA
BLOOD-BRAIN BARRIER TO CARBIDOPA (MK-486) AND RO-4-4602, PERIPHERAL DOPA DECARBOXYLASE INHIBITORS.
155906 04-03

CARBOHYDRATE
EFFECT OF BENZODIAZEPINES ON CARBOHYDRATE METABOLISM IN RAT BRAIN.
160476 04-03

CARBON
EFFECTS OF D-AMPHETAMINE ON THE INCORPORATION OF CARBON ATOMS OF D-MANNOSE INTO THE BRAINS AND SERA OF DIFFERENTIALLY HOUSED MICE: SHORT-TERM REVERSIBILITY OF THESE EFFECTS.
163779 04-03

CARBON-14
BIOSYNTHESIS OF RESERPINE FROM CARBON-14 DIOXIDE.
156868 04-01

CARBONATE
LITHIUM CARBONATE IN THE AMBULATORY, CHRONICALLY PSYCHOTIC PATIENT.
150347 04-08

LITHIUM CARBONATE THERAPY IN ENDOGENOUS DEPRESSION.
150746 04-09

THE USE OF LITHIUM CARBONATE IN THE TREATMENT OF MOOD DISORDERS.
150798 04-09

ORGANIC BRAIN SYNDROME DURING LITHIUM CARBONATE TREATMENT.
153271 04-15

INFLUENCE OF LITHIUM CARBONATE ON PATIENTS WITH TEMPORAL EPILEPSY.
153614 04-11

LITHIUM CARBONATE IN THE TREATMENT OF HYPERACTIVE CHILDREN.
156155 04-11

LITHIUM CARBONATE AND CONVULSIVE DISORDERS.
156156 04-15

INFLUENCE OF LITHIUM CARBONATE ON THE ELECTROENCEPHALOGRAM.
158330 04-13
LITHIUM CARBONATE AND IMIPRAMINE IN PREVENTION OF AFFECTIVE EPISODES.
159778 04-09
THE EFFECT OF LITHIUM CARBONATE ON THE SLEEP OF DEPRESSED PATIENTS.
161391 04-14
EFFECT OF LITHIUM CARBONATE AND ALPHA-METHYL-P-TYROSINE ON AUDIOGENIC SEIZURE INTENSITY.
163803 04-03

CARDIAC
STUDIES ON THE MECHANISM OF CARDIAC TOXICITY OF TRICYCLIC ANTIDEPRESSANTS.
158474 04-05

CARDIOVASCULAR
EMOTIONALLY INDUCED CARDIOVASCULAR CHANGES IN MAN AS A MEANS FOR THE INVESTIGATION OF TRANQUILLIZING DRUGS.
150323 04-13
CANNABIS AND THE CARDIOVASCULAR SYSTEM.
154661 04-15
THE CARDIOVASCULAR EFFECTS OF APOMORPHINE IN THE ANAESTHETIZED RAT.
156818 04-03
CARDIOVASCULAR EFFECTS OF 2,5 DIMETHOXY-4-METHYLAMPHETAMINE (DOM, STP).
157068 04-03

CARDS
A DISCRIMINATIVE STUDY OF THE ACTION OF A PSYCHOTROPIC DRUG BY THE USE OF THE B.P.R.S. CARDS.
161278 04-11

CASE
HEATSTROKE IN THREE CHRONIC SCHIZOPHRENICS: CASE REPORTS AND CLINICAL CONSIDERATIONS.
153273 04-15
PSYCHIATRIC CASE STUDIES: TREATMENT, DRUGS, AND OUTCOME.
154482 04-17
A CASE OF TURNERS SYNDROME WITH PSYCHIC DISTURBANCES.
156552 04-11
THE USE OF LSD IN THE PSYCHOANALYTIC TREATMENT OF A CASE OF ANXIETY HYSTERIA.
156920 04-10
THE CASE FOR REPORTING THE DRUG STATUS OF PATIENT SUBJECTS IN EXPERIMENTAL STUDIES OF SCHIZOPHRENIC PSYCHOPATHOLOGY.
159043 04-06

CASEWORKER
EFFECTS OF MEDICATION ON THE CASEWORKER CLIENT RELATIONSHIP.
164429 04-17

CAT
NEUROMUSCULAR BLOCKING DRUGS AND THE HEART RATE RESPONSE TO DIRECT PREGANGLIONIC STIMULATION OF THE SYMPATHETICS AND PARASYMPATHETICS IN THE CAT.
153171 04-03
EFFECT OF PARA-METHOXYPHENYLETHYLAMINE ON POLYSYNAPTIC PATHWAYS AND ON INTERNEURONS OF THE CAT LUMBAR SPINAL CORD.
157112 04-03
EFFECTS OF ALPHA-METHYLTYROSINE ON REM SLEEP AND BRAIN AMINE LEVELS IN THE CAT.
157497 04-03
A MODULATING EFFECT OF CHLORDIAZEPOXIDE ON DRUG-INDUCED PGO SPIKES IN THE CAT.
158293 04-03
KINETICS OF THE DISTRIBUTION OF 14C-DIAZEPAM AND ITS METABOLITES IN VARIOUS AREAS OF CAT BRAIN.
160478 04-03
SPONTANEOUS RELEASE AND DURING METRAZOL CONVULSIONS OF 5-HYDROXYTRYPTAMINE IN SOME BRAIN REGIONS OF CONSCIOUS CAT.
162056 04-03
THE TONIC VIBRATION REFLEX SEEN IN THE ACUTE SPINAL CAT AFTER TREATMENT WITH DOPA.
162892 04-03
EFFECTS OF P-CHLOROPHENYLALANINE AND 5-HYDROXYTRYPTOPHAN ON SLEEP - WAKEFULNESS AND THE CENTRAL METABOLISM OF MONOAMINES AND PROTEINS IN THE CAT.
166692 04-04

CATABOLISM
EFFECT OF DIPHENYLHYDANTOIN ON THE UPTAKE AND CATABOLISM OF L-(3H)NOREPINEPHRINE IN VITRO IN RAT CEREBRAL CORTEX TISSUE.
166696 04-03

CATATONIA
URINARY CYCLIC AMP IN PERIODIC CATATONIA.
160826 04-13

CATECHOL-O-METHYLTRANSFERASE
EVIDENCE FOR THE METHYLATION OF APOMORPHINE BY CATECHOL-O-METHYLTRANSFERASE IN VIVO AND IN VITRO.
160545 04-03
THE IN VIVO EFFECT OF TROPOLONE ON DOPAMINE METABOLISM AND THE CATECHOL-O-METHYLTRANSFERASE ACTIVITY IN THE STRIATUM OF THE RAT.
163321 04-03

CATECHOLAMINE
CATECHOLAMINE SYNTHESIS AND THE REGULATION OF FOOD INTAKE IN THE RAT.
150423 04-04
CATECHOLAMINE CONCENTRATIONS IN DISCRETE AREAS OF THE RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
151629 04-03
NARCOTIC ANALGESICS AND THE REGULATION OF NEURONAL CATECHOLAMINE STORES. (UNPUBLISHED PAPER).
152199 04-03
BENZODIAZEPINES: A STUDY OF THE RELATIONSHIP BETWEEN THEIR EFFECT ON CATECHOLAMINE TURNOVER RATE AND PENTYLENETETRAZOLE CONVULSIONS. (UNPUBLISHED PAPER).
152543 04-03
EFFECTS OF MORPHINE ON CATECHOLAMINE TURNOVER, CYCLIC 3,5 AMP CONCENTRATIONS AND TYROSINE HYDROXYLASE ACTIVITY IN RAT TISSUES. (UNPUBLISHED PAPER).
152549 04-03
GILLES-DE-LA-TOURETTES DISEASE AND MINIMAL BRAIN DYSFUNCTION: AMPHETAMINE ISOMERS REVEAL CATECHOLAMINE CORRELATES IN AN AFFECTED PATIENT.
153097 04-11
THYROID HORMONES AND CATECHOLAMINE MACROMOLECULAR MECHANISMS IN CNS.
155260 04-03
EFFECT OF ERGOT DRUGS ON CENTRAL CATECHOLAMINE NEURONS: EVIDENCE FOR A STIMULATION OF CENTRAL DOPAMINE NEURONS.
155903 04-03
POSSIBLE CATECHOLAMINE MEDIATION OF LEVALLORPHAN INDUCED BEHAVIOURAL DISRUPTION IN RATS.
157041 04-04
AUGMENTATION OF PRESSOR RESPONSE TO CATECHOLAMINE BY N,N DIMETHYLETHYLENEDIAMINES.
158476 04-03
DIFFERENTIAL EFFECTS ON MOUSE BRAIN CATECHOLAMINE TURNOVER OF CHLORPROMAZINE, TRIFLUOPERAZINE AND CLOSELY-RELATED NOT-TRANQUILLIZING ANALOGUES.
161145 04-13
PREVENTION OF RESERPINE DEPLETION OF THE CATECHOLAMINE RESERVE WITH FLUORACIZINE.
162922 04-03
A COMPARISON OF THE EFFECTS OF D-AMPHETAMINE AND MORPHINE UPON THE LOCOMOTOR ACTIVITY OF MICE TREATED WITH DRUGS WHICH ALTER BRAIN CATECHOLAMINE CONTENT.
163769 04-04
EVIDENCE FOR CATECHOLAMINE INVOLVEMENT IN THE SUPPRESSION OF LOCOMOTOR ACTIVITY DUE TO HYPOXIA.
163802 04-03
PENTYLENETETRAZOL CONVULSIONS AND BRAIN CATECHOLAMINE TURNOVER RATE IN RATS AND MICE RECEIVING DIPHENYLHYDANTOIN AND BENZODIAZEPINES.
164834 04-03

CATECHOLAMINES
BRAIN CATECHOLAMINES AND THEIR METABOLITES IN PARKINSONIAN PATIENTS: TREATMENT WITH LEVODOPA ALONE OR COMBINED WITH A DECARBOXYLASE INHIBITOR.
150218 04-13
BEHAVIOURAL AND PHARMACOLOGICAL STUDIES ON MORPHINE INDUCED EXCITATION OF RATS. POSSIBLE RELATION TO BRAIN CATECHOLAMINES.
150667 04-04
ACTIVITY OF BRAIN PHENOLSULFOTRANSFERASE FOR THE CATECHOLAMINES AND THEIR METABOLITES. (UNPUBLISHED PAPER).
151657 04-03
THE INTERACTION OF CHLORDIAZEPOXIDE, DIAZEPAM, AND NITRAZEPAM WITH CATECHOLAMINES AND HISTAMINE IN REGIONS OF THE RAT BRAIN.
160471 04-03
UPTAKE OF (3H)- CATECHOLAMINES BY HOMOGENATES OF RAT CORPUS-STRIATUM AND CEREBRAL CORTEX: EFFECTS OF AMPHETAMINE ANALOGUES.
160637 04-03
EVIDENCE FOR NONINVOLVEMENT OF CENTRAL CATECHOLAMINES IN COPPER ACETATE INDUCED OVULATION.
163797 04-03

CATS
CLASSICAL AVERSIVE CONDITIONING IN CATS UNDER VARIOUS NEUROMUSCULAR BLOCKING DRUGS.
153217 04-04
THE INFLUENCE OF P-CHLOROPHENYLALANINE ON THE EFFECT OF 5-HYDROXYTRYPTOPHAN ON SPINAL SYNAPTIC ACTIVITY IN CHRONIC SPINAL AND RESERPINIZED CATS.
154959 04-03

BEHAVIORAL AND BIOCHEMICAL EFFECTS OF ALPHA-METHYLTYROSINE IN CATS.
157144 04-04

ACUTE TOLERANCE TO DIAZEPAM IN CATS.
158295 04-03

EFFECTS OF CHRONICALLY ADMINISTERED L-DOPA IN NORMAL AND LESIONED CATS.
163767 04-03

INTERACTIONS BETWEEN AMPHETAMINE AND SEROTONERGIC AGENTS ON CATS ISOLATED CEREBRAL CORTEX.
163780 04-03

EFFECTS OF NEW S-TRIAZOLOBENZODIAZEPINE (D-40TA) AND OTHER CENTRAL MUSCLE RELAXANTS ON SPINAL AND SUPRASPINAL REFLEXES IN CATS.
163798 04-03

5-HYDROXYTRYPTAMINE METABOLISM, SUPERIOR-COLLICULUS, AND GROOMING BEHAVIOR IN CATS WITH PONTILE LESIONS.
166157 04-03

CAUSAL

HYPERTHERMIA AND THE AMPHETAMINE AGGREGATION PHENOMENON: ABSENCE OF A CAUSAL RELATION.
155909 04-03

CAUTIONED

M.D.S CAUTIONED ON ANTIPARKINSON DRUGS.
155760 04-15

CDP

EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) AND CHLORDIAZEPOXIDE (CDP) ON STATE-DEPENDENT LEARNING: EVIDENCE FOR ASYMMETRICAL DISSOCIATION.
150301 04-04

CELL

THE INFLUENCE OF PSYCHOTROPIC DRUGS ON THE GENETIC CELL MATERIAL.
156569 04-15

DOPAMINERGIC NEURONS: EFFECT OF ANTIPSYCHOTIC DRUGS AND AMPHETAMINE ON SINGLE CELL ACTIVITY.
157111 04-03

EFFECTS OF MORPHINE AND ANALOGUES ON CELL METABOLISM.
164858 04-03

INHIBITION OF URIDINE INCORPORATION INTO RNA IN MAMMALIAN CELLS BY AGENTS AFFECTING THE PROPERTIES OF THE CELL MEMBRANE: CHLORPROMAZINE, DIPYRIDAMOLE AND PHENYLETHANOL.
166700 04-03

CELLS

INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE.
150583 04-03

CHLORPROMAZINE HYDROXYLAMINES IN RED BLOOD CELLS AS MAJOR METABOLITES OF CHLORPROMAZINE IN MAN.
151633 04-13

THE EFFECT OF CHOLERA TOXIN ON THE PHOSPHORYLATION OF PROTEIN IN EPITHELIAL CELLS AND THEIR BRUSH BORDERS.
156879 04-03

INHIBITION OF URIDINE INCORPORATION INTO RNA IN MAMMALIAN CELLS BY AGENTS AFFECTING THE PROPERTIES OF THE CELL MEMBRANE: CHLORPROMAZINE, DIPYRIDAMOLE AND PHENYLETHANOL.
166700 04-03

CELLULAR

NEW INVESTIGATIONS INTO BIOGENIC AMINES (CEREBRAL OR CELLULAR LOCALIZATION, INFLUENCE OF VARIOUS CHEMICAL FACTORS).
167085 04-03

CENTRAL

CENTRAL NERVOUS ACTIONS AND SCREENING METHODS OF ANTIDEPRESSANTS.
150397 04-03

SECURININE: A CENTRAL NERVOUS SYSTEM STIMULANT IS USED IN THE TREATMENT OF AMYTROPHIC LATERAL SCLEROSIS.
150425 04-11

5-HYDROXYTRYPTAMINE SUPERSENSITIVITY AS A NEW THEORY OF HEADACHE AND CENTRAL PAIN: A CLINICAL PHARMACOLOGICAL APPROACH WITH P-CHLOROPHENYLALANINE.
150670 04-15

PHARMACOLOGICAL MODIFICATIONS OF THE 6-HYDROXYDOPA INDUCED DEGENERATION OF CENTRAL NORADRENALINE NEURONS.
151350 04-03

THE CENTRAL ACTION OF ANTIHYPERTENSIVE DRUGS, MEDIATED VIA CENTRAL ALPHA-RECEPTORS.
151626 04-13

USE OF D-AMPHETAMINE AND RELATED CENTRAL NERVOUS SYSTEM STIMULANTS IN CHILDREN.
152066 04-11

REM SLEEP AND CENTRAL MONOAMINE OXIDASE INHIBITION.
152122 04-13

THE RE-EVALUATION OF A CENTRAL NERVOUS SYSTEM STIMULANT: PIPRADROL HYDROCHLORIDE.
152211 04-09

A COMPARATIVE STUDY OF THE ACTION OF ACTINOMYCIN D AND ACTINOMYCINIC ACID ON THE CENTRAL NERVOUS SYSTEM WHEN INJECTED INTO THE CEREBROSPINAL FLUID OF HIGHER ANIMALS.
152436 04-05

DOPAMINE RECEPTOR BLOCKADE -- A CENTRAL ACTION OF CHLORPROMAZINE ON STRIATAL NEURONS.
152439 04-13

EFFECT OF ERGOT DRUGS ON CENTRAL CATECHOLAMINE NEURONS: EVIDENCE FOR A STIMULATION OF CENTRAL DOPAMINE NEURONS.
155903 04-03

BLOCKADE OF THE CENTRAL EFFECTS OF D-AMPHETAMINE SULFATE BY AMANTADINE HYDROCHLORIDE.
156819 04-03

EFFECTS OF AMPHETAMINE AND ITS HYDROXYLATED METABOLITES ON CENTRAL NORADRENERGIC MECHANISMS.
157118 04-03

TRIAZOLOBENZODIAZEPINES, A NEW CLASS OF CENTRAL NERVOUS SYSTEM DEPRESSANT COMPOUNDS.
158279 04-03

CENTRAL NERVOUS ACTION OF 6-HYDROXYDOPAMINE.
158497 04-03

THE EFFECTS OF BENZODIAZEPINES, MEPROBAMATE, AND BARBITURATES ON CENTRAL MONOAMINE NEURONS.
160472 04-03

CENTRAL NEUROGENIC CONTROL OF CEREBRAL CIRCULATION.
162136 04-03

INVOLVEMENT OF BIOGENIC AMINES IN MEMORY FORMATION: THE CENTRAL NERVOUS SYSTEM INDOLE AMINE INVOLVEMENT.
162272 04-03

CHARACTERIZATION OF CENTRAL ANGIOTENSIN II RECEPTORS INVOLVED IN THE ELICITATION OF DRINKING IN THE RAT.
162890 04-03

EFFECTS OF INTRACEREBRAL INJECTIONS OF 5,6 DIHYDROXYTRYPTAMINE ON CENTRAL MONOAMINE NEURONS: EVIDENT FOR SELECTIVE DEGENERATION OF CENTRAL 5-HYDROXYTRYPTAMINE NEURONS.
162894 04-03

EVIDENCE FOR NONINVOLVEMENT OF CENTRAL CATECHOLAMINES IN COPPER ACETATE INDUCED OVULATION.
163797 04-03

EFFECTS OF NEW S-TRIAZOLOBENZODIAZEPINE (D-40TA) AND OTHER CENTRAL MUSCLE RELAXANTS ON SPINAL AND SUPRASPINAL REFLEXES IN CATS.
163798 04-03

CENTRAL NEUROTRANSMITTER EFFECTS OF ETHANOL.
165634 04-03

NOREPINEPHRINE (NE) TURNOVER IN THE CENTRAL NERVOUS SYSTEM (CNS) -- ESTIMATED IN THE RAT FROM URINARY 3-METHOXY-4-HYDROXYPHENYLGLYCOL (MHPG) EXCRETION. (UNPUBLISHED PAPER
165941 04-03

POSSIBLE SITE OF ACTION OF GEROVITAL-H3 IN THE CENTRAL NERVOUS SYSTEM.
166389 04-03

ON THE CENTRAL MEDIATION OF ANOREXIGENIC DRUG EFFECTS.
166690 04-03

EFFECTS OF P-CHLOROPHENYLALANINE AND 5-HYDROXYTRYPTOPHAN ON SLEEP - WAKEFULNESS AND THE CENTRAL METABOLISM OF MONOAMINES AND PROTEINS IN THE CAT.
166692 04-04

CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE: STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER).
166960 04-09

DAMAGE TO THE CENTRAL NERVOUS SYSTEM IN THE COURSE OF NEUROLEPTIC TREATMENT.
167087 04-15

CEPHALEXIN

REVERSIBLE TOXIC PSYCHOSIS AFTER CEPHALEXIN.
156754 04-15

CEREBELLAR

CEREBELLAR TOXIC EFFECTS FROM NITROFURANTOIN.
158153 04-15

PROGRESSIVE CEREBELLAR DYSSYNERGIA: THE USE OF DIAZEPAM.
164699 04-11

CEREBRAL

CEREBRAL HYDROXYLASES: STIMULATION BY A NEW FACTOR.
149650 04-03

PHARMACOLOGICAL TREATMENT OF CEREBRAL ARTERIOSCLEROSIS WITH A NEW DRUG COMBINATION.
151268 04-11

IS THE UPTAKE OF NARCOTIC ANALGESICS BY CEREBRAL CORTICAL SLICES MEDIATED IN PART BY ACTIVE TRANSPORT?
151631 04-03

EFFECT OF SCOPOLAMINE ON THE CEREBRAL ACCUMULATION OF 14C-CATECHOLAMINES FROM 14C-TYROSINE.
151907 04-03

DEVELOPMENT AND CHARACTERISTICS OF THE HISTAMINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RABBIT CEREBRAL CORTEX. (UNPUBLISHED PAPER).
154372 04-03

INHIBITION OF STIMULATED CEREBRAL RESPIRATION IN VITRO AND OXYGEN CONSUMPTION IN VIVO IN RATS TREATED BY CHOLINOLYTIC DRUGS.
156639 04-03

SOME OBSERVATIONS ON THE CIRCADIAN RHYTHM OF LOCOMOTOR ACTIVITY OF MICE AFTER DEPLETION OF CEREBRAL MONOAMINES.
158002 04-03

THE EFFECTS OF ANALGESICS AND NEUROLEPTICS ON THE RELEASE OF MONOAMINE METABOLITES INTO THE LATERAL CEREBRAL VENTRICLE OF RABBIT.
158482 04-03

EFFECT OF XANTHINOL NICOTINATE ON METABOLISM OF BRAIN CYCLIC AMP AND METABOLISM IN ELECTRICALLY STIMULATED CEREBRAL TISSUE.
158511 04-03

EFFECTS OF ETHANOL ON CEREBRAL CORTICAL NEURONS: INTERACTIONS WITH SOME PUTATIVE TRANSMITTERS.
158773 04-03

THE EFFECT OF DIAZEPAM ON THE TURNOVER OF CEREBRAL DOPAMINE.
160474 04-03

UPTAKE OF (3H)- CATECHOLAMINES BY HOMOGENATES OF RAT CORPUS-STRIATUM AND CEREBRAL CORTEX: EFFECTS OF AMPHETAMINE ANALOGUES.
160637 04-03

HIPPOCAMPAL EPILEPSY PRODUCED BY OUABAIN: STUDIES OF CEREBRAL CIRCULATION AND IONIC METABOLISM.
160649 04-03

THE EFFECT OF THE CONVULSANT 3-MERCAPTOPROPIONIC ACID ON ENZYMES OF THE GAMMA-AMINOBUTYRATE SYSTEM IN THE RAT CEREBRAL CORTEX.
161378 04-03

CENTRAL NEUROGENIC CONTROL OF CEREBRAL CIRCULATION.
162136 04-03

INTERACTIONS BETWEEN AMPHETAMINE AND SEROTONERGIC AGENTS ON CATS ISOLATED CEREBRAL CORTEX.
163780 04-03

EFFECTS OF DIPHENYLHYDANTOIN ON LOCAL CEREBRAL BLOOD FLOW. (UNPUBLISHED PAPER)
164809 04-03

EFFECT OF DIPHENYLHYDANTOIN ON THE UPTAKE AND CATABOLISM OF L-(3H)NOREPINEPHRINE IN VITRO IN RAT CEREBRAL CORTEX TISSUE.
166696 04-03

NEW INVESTIGATIONS INTO BIOGENIC AMINES (CEREBRAL OR CELLULAR LOCALIZATION, INFLUENCE OF VARIOUS CHEMICAL FACTORS).
167085 04-03

CEREBROSPINAL

A COMPARATIVE STUDY OF THE ACTION OF ACTINOMYCIN D AND ACTINOMYCINIC ACID ON THE CENTRAL NERVOUS SYSTEM WHEN INJECTED INTO THE CEREBROSPINAL FLUID OF HIGHER ANIMALS.
152436 04-05

ADENOSINE 3,5 MONOPHOSPHATE IN CEREBROSPINAL FLUID.
158154 04-13

ACID MONOAMINE METABOLITES IN THE CEREBROSPINAL FLUID OF PARKINSONIAN PATIENTS TREATED WITH LEVODOPA ALONE OR COMBINED WITH DECARBOXYLASE INHIBITOR.
160650 04-13

LEVODOPA AND DOPAMINE IN CEREBROSPINAL FLUID.
162138 04-06

ESTIMATION OF BRAIN AMINE METABOLISM IN AFFECTIVE ILLNESS: CEREBROSPINAL FLUID STUDIES UTILIZING PROBENECID.
164871 04-11

CHAIN

THE EFFECT OF N-ALKYL CHAIN LENGTH AND STEREOCHEMISTRY ON THE ABSORPTION, METABOLISM AND URINARY EXCRETION OF N-ALKYLAMPHETAMINES IN MAN.
163800 04-13

CHANGE

A PERMANENT CHANGE IN CONVULSIVE THRESHOLD IN NORMAL AND BRAIN-DAMAGED RATS WITH REPEATED SMALL DOSES OF PENTYLENETETRAZOL.
152437 04-03

EEG, HEART RATE AND MOOD CHANGE (HIGH) AFTER CANNABIS.
163747 04-13

CHANGES

EMOTIONALLY INDUCED CARDIOVASCULAR CHANGES IN MAN AS A MEANS FOR THE INVESTIGATION OF TRANQUILLIZING DRUGS.
150323 04-13

DEVELOPMENTAL CHANGES IN NEUROCHEMISTRY DURING THE MATURATION OF SLEEP BEHAVIOR.
151707 04-03

SYNAPTIC CHANGES IN THE RABBIT PALLIDUM FOLLOWING LONG-TERM HALOPERIDOL ADMINISTRATION.
152027 04-05

THE INFLUENCE OF METHAMPHETAMINE AND DIAZEPAM ON THE AMPLITUDE CHANGES OF THE ACHILLES TENDON AND HOFFMANN REFLEX DURING A MENTAL TASK.
152074 04-14

INFLUENCE OF CHANGES IN ADRENERGIC AND CHOLINERGIC ACTIVITY UPON ACQUISITION OF OPERANT DISCRIMINATION IN ALBINO RATS.
154639 04-04

DELTA9-TETRAHYDROCANNABINOL: ELECTROENCEPHALOGRAPHIC CHANGES AND AUTONOMIC RESPONSES IN THE RABBIT.
154970 04-03

DRUG-INDUCED CHANGES OF STRIATAL CHOLINERGIC AND DOPAMINERGIC FUNCTIONS IN RATS WITH SPREADING DEPRESSION.
156797 04-03

AN EVALUATION OF TIME-DEPENDENT CHANGES IN SUSCEPTIBILITY OF MICE TO PENTOBARBITAL INJECTION.
156809 04-04

A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

GROWTH AND BEHAVIORAL CHANGES IN DEVELOPING RATS TREATED INTRACISTERNALLY WITH 6-HYDROXYDOPAMINE: EVIDENCE FOR INVOLVEMENT OF BRAIN DOPAMINE.
157117 04-03

NICOTINE AND SMOKING: EFFECTS UPON SUBJECTIVE CHANGES IN MOOD.
157150 04-14

THE EFFECTS OF CHANGES IN IONIC ENVIRONMENT AND MODIFICATION OF ADRENERGIC FUNCTION ON THE VASCULAR RESPONSES TO SYMPATHOMIMETIC AMINES.
158769 04-03

EFFECTS OF DRUG-INDUCED BEHAVIOR CHANGES IN HYPERACTIVE CHILDREN ON MATERNAL ATTITUDE AND PERSONALITY. (PH.D. DISSERTATION).
159130 04-14

MODERN TRENDS IN THE DIAGNOSIS AND TREATMENT OF DEPRESSION: CHANGES IN TREATMENT METHODS AND THEIR RESULTS.
166934 04-09

CHARACTERISTICS

SPECIFIC CHARACTERISTICS OF DIBENZOTHIAZEPINE IN PSYCHOTHERAPY.
149745 04-11

DEVELOPMENT AND CHARACTERISTICS OF THE HISTAMINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RABBIT CEREBRAL CORTEX. (UNPUBLISHED PAPER).
154372 04-03

APOMORPHINE INDUCED AGGRESSION: CHARACTERISTICS, PHARMACOLOGICAL INTERVENTION, AND SITE OF ACTION.
155246 04-03

CHARACTERISTICS OF PENTAZOCINE DEPENDENCE IN HOSPITALIZED PATIENTS AFTER NALOXONE ADMINISTRATION.
157037 04-15

CHARACTERISTICS OF ABNORMAL BEHAVIOR INDUCED BY 2-(2,6 DICHLOROPHENYLAMINO)-2 IMIDAZOLINE (ST-155) IN MICE.
158494 04-04

PHYSICIAN CHARACTERISTICS AND ATTITUDES TOWARD LEGITIMATE USE OF PSYCHOTHERAPEUTIC DRUGS.
158645 04-17

CHARACTERIZATION

CHARACTERIZATION OF CENTRAL ANGIOTENSIN II RECEPTORS INVOLVED IN THE ELICITATION OF DRINKING IN THE RAT.
162890 04-03

CHELATION

METAL CHELATION OF CHLORPROMAZINES.
166902 04-03

CHEMICAL

CHEMICAL INFLUENCES ON BEHAVIOUR.
150155 04-15

CHILEAN MARIHUANA: CHEMICAL COMPOSITION AND PHARMACOLOGICAL ASPECTS.
150650 04-01

CHEMICAL AND ELECTRICAL TREATMENT OF AGGRESSION.
155243 04-04

PERIPHERAL CHEMICAL SYMPATHECTOMY AND LEARNING.
161718 04-04

EFFECT OF CHEMICAL SYMPATHECTOMY ON PRESSOR RESPONSES TO NOREPINEPHRINE, ANGIOTENSIN AND TYRAMINE.
163021 04-03

EFFECT OF CHEMICAL SYMPATHECTOMY ON MORPHINE ANTINOCICEPTION AND TOLERANCE DEVELOPMENT IN THE RAT.
166694 04-03

NEW INVESTIGATIONS INTO BIOGENIC AMINES (CEREBRAL OR CELLULAR LOCALIZATION, INFLUENCE OF VARIOUS CHEMICAL FACTORS).
167085 04-03

CHEMISTRY
CHEMISTRY OF 1,4 BENZODIAZEPINES AND SOME ASPECTS OF THE STRUCTURE-ACTIVITY RELATIONSHIP.
160463 04-01

CHEMOTHERAPY
SPECIFIC CHEMOTHERAPY OF THE MOST FREQUENT SUDDEN NERVOUS DISEASES.
151004 04-11

CURRENT STATUS OF CHEMOTHERAPY OF EPILEPSY.
151011 04-11

RELATIONSHIP OF CLINICAL AND DEMOGRAPHIC VARIABLES TO COMMUNITY ADJUSTMENT OF SCHIZOPHRENIC OUTPATIENTS ON CHEMOTHERAPY. (ED. D. DISSERTATION).
158779 04-08

CHICKEN
INHIBITION OF RENAL TUBULAR TRANSPORT OF MORPHINE BY DIETHYLAMINOETHANOL IN THE CHICKEN.
152162 04-03

CHILD
HELP FOR THE HYPERKINETIC CHILD IN SCHOOL.
158345 04-11

CHILDHOOD
CHILDHOOD ACROMEGALY: SUCCESSFUL THERAPY WITH CONVENTIONAL RADIATION AND EFFECTS OF CHLORPROMAZINE ON GROWTH HORMONE AND PROLACTIN SECRETION.
160653 04-13

CHILDREN
THE EFFECT OF A STIMULANT DRUG (METHAMPHETAMINE) ON COGNITIVE IMPULSIVITY, PLANNING, NEW LEARNING, AND SOCIAL BEHAVIOR IN HYPERACTIVE CHILDREN. (PH.D. DISSERTATION).
149717 04-14

RESPONSE TO TRIIODOTHYRONINE AND DEXTROAMPHETAMINE: A STUDY OF PRESCHOOL SCHIZOPHRENIC CHILDREN.
150432 04-08

A SINGLE-BLIND EVALUATION OF THIOTHIXENE WITH OUTPATIENT SCHIZOPHRENIC CHILDREN.
150434 04-08

ORAL MEDICATIONS FOR MINIMAL BRAIN DYSFUNCTION IN CHILDREN.
150550 04-11

BEHAVIOURAL AND DRUG TREATMENT OF CHILDREN WITH SEVERE MENTAL HANDICAP.
151452 04-11

FACTORS INFLUENCING THE SUPPRESSANT EFFECTS OF TWO STIMULANT DRUGS ON THE GROWTH OF HYPERACTIVE CHILDREN.
151592 04-15

USE OF D-AMPHETAMINE AND RELATED CENTRAL NERVOUS SYSTEM STIMULANTS IN CHILDREN.
152066 04-11

ACUTE RESPONSES OF SCHIZOPHRENIC CHILDREN TO A SEDATIVE AND STIMULATING NEUROLEPTIC: A PHARMACOLOGIC YARDSTICK.
152208 04-08

A DOUBLE-BLIND COMPARISON OF HALOPERIDOL (HALDOL) AND THIORIDAZINE (MELLARIL) IN OUTPATIENT CHILDREN.
152212 04-11

THE EFFECT OF DEXTROAMPHETAMINE ON HABITUATION OF PERIPHERAL VASCULAR RESPONSE IN CHILDREN.
154739 04-14

LITHIUM AND PREGNANCY - III, LITHIUM INGESTION BY CHILDREN BREAST-FED BY WOMEN ON LITHIUM TREATMENT.
155043 04-15

T3 ALONE IN SCHIZOPHRENIC CHILDREN.
155258 04-08

LITHIUM CARBONATE IN THE TREATMENT OF HYPERACTIVE CHILDREN.
156155 04-11

BENZONAL IN THE TREATMENT OF EPILEPTIC ATTACKS IN CHILDREN.
156566 04-11

USE OF PSYCHOPHARMACOLOGICAL AGENTS IN CHILDREN.
156847 04-11

TREATING PROBLEM CHILDREN WITH STIMULANT DRUGS.
158175 04-14

EFFECTS OF DRUG-INDUCED BEHAVIOR CHANGES IN HYPERACTIVE CHILDREN ON MATERNAL ATTITUDE AND PERSONALITY. (PH.D. DISSERTATION).
159130 04-14

DRUG TREATMENT OF HYPERACTIVITY IN CHILDREN.
160694 04-14

HALOPERIDOL AND CHLORPROMAZINE: A DOUBLE-BLIND CROSSOVER TRIAL AND CLINICAL STUDY IN CHILDREN AND ADOLESCENTS.
161661 04-11

EFFECTS OF RITALIN ON HYPERKINETIC CHILDREN ATTENDING THE GLENDALE ELEMENTARY SCHOOLS. (ED.D. DISSERTATION).
162069 04-11

CHILEAN
CHILEAN MARIHUANA: CHEMICAL COMPOSITION AND PHARMACOLOGICAL ASPECTS.
150650 04-01

CHIMPANZEE
EFFECTS OF D-AMPHETAMINE ON SCHEDULE CONTROLLED KEY PRESSING AND DRINKING IN THE CHIMPANZEE.
157119 04-04

CHIMPANZEES
LONG-TERM INTERACTIONS OF MARIJUANA AND BEHAVIOUR IN CHIMPANZEES.
150388 04-04

CHLORAMPHENICOL
INTERACTION OF CHLORAMPHENICOL AND DELTA1-TETRAHYDROCANNABINOL IN BARBITAL ANESTHETIZED MICE.
162055 04-02

CHLORDIAZEPOXIDE
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) AND CHLORDIAZEPOXIDE (CDP) ON STATE-DEPENDENT LEARNING: EVIDENCE FOR ASYMMETRICAL DISSOCIATION.
150301 04-04

EFFECTS OF CHLORDIAZEPOXIDE UPON SUCCESSIVE RED-GREEN DISCRIMINATION RESPONSES IN JAPANESE MONKEYS, MACACA-FUSCATA.
150325 04-04

BIOCHEMICAL EFFECTS OF THE ANTICONVULSANTS TRIMETHADIONE, ETHOSUXIMIDE, AND CHLORDIAZEPOXIDE IN RAT BRAIN.
152087 04-03

AVERSIVE CONDITIONING BY PSYCHOACTIVE DRUGS: EFFECTS OF MORPHINE, ALCOHOL AND CHLORDIAZEPOXIDE.
153107 04-04

COMPARISON OF CHLORDIAZEPOXIDE AND FOOD DEPRIVATION IN RATS ON A FIXED-RATIO SATIATION SCHEDULE.
153599 04-04

THE TREATMENT OF SEVERE ANXIETY IN OUTPATIENTS: A CONTROLLED STUDY COMPARING CHLORDIAZEPOXIDE AND CHLORPROMAZINE.
155794 04-10

CLINICAL RESPONSE TO AMITRIPTYLINE AND CHLORDIAZEPOXIDE AMITRIPTYLINE (LIMBITROL) IN ANXIETY DEPRESSIVE STATES: A DOUBLE-BLIND STUDY.
155887 04-10

EFFECTS OF METHAMPHETAMINE AND CHLORDIAZEPOXIDE ON SCHEDULE CONTROLLED AND ADJUNCTIVE LICKING IN THE RAT.
157156 04-04

EFFECTS OF PROPRANOLOL AND CHLORDIAZEPOXIDE ON CONFLICT BEHAVIOR IN RATS.
158005 04-04

EFFECTS OF CHLORDIAZEPOXIDE ALONE AND IN COMBINATION WITH AMPHETAMINE ON ANIMAL AND HUMAN BEHAVIOR.
158283 04-14

ANTIAGGRESSIVE EFFECTS OF CHLORDIAZEPOXIDE.
158288 04-04

A MODULATING EFFECT OF CHLORDIAZEPOXIDE ON DRUG-INDUCED PGO SPIKES IN THE CAT.
158293 04-03

SLEEP LABORATORY AND CLINICAL STUDIES OF THE EFFECTS OF BENZODIAZEPINES ON SLEEP: FLURAZEPAM, DIAZEPAM, CHLORDIAZEPOXIDE, AND RO-5-4200.
158299 04-14

PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09

THE INTERACTION OF CHLORDIAZEPOXIDE, DIAZEPAM, AND NITRAZEPAM WITH CATECHOLAMINES AND HISTAMINE IN REGIONS OF THE RAT BRAIN.
160471 04-03

RELATIONSHIPS OF CHLORDIAZEPOXIDE BLOOD LEVELS TO PSYCHOLOGICAL AND BIOCHEMICAL RESPONSES.
160477 04-14

PUNISHMENT OF SACCHARIN DRINKING BY AMPHETAMINE IN RATS AND ITS REVERSAL BY CHLORDIAZEPOXIDE.
166165 04-04

CHLORIDE
EFFECTS OF LITHIUM CHLORIDE ON THE ACTIVITY OF RATS TESTED ALONE OR IN PAIRS.
150356 04-04

SUPPRESSION AND RECOVERY OF MOUSE KILLING IN RATS FOLLOWING IMMEDIATE LITHIUM CHLORIDE INJECTIONS.
151228 04-04

LONG-TERM TOXICITY STUDY OF METHYLMERCURY CHLORIDE IN MONKEYS (SECOND REPORT).
158515 04-05

EXPERIMENTAL STUDIES ON THE DISTRIBUTION AND EXCRETION OF 203HG-ETHYLMERCURY CHLORIDE.
158516 04-03

EMBRYO FETOTOXIC EFFECT OF METHYLMERCURIC CHLORIDE IN RATS AND MICE.
165730 04-05

CHLORIMIPRAMINE
CLINICAL EXPERIENCE WITH A COMBINATION OF CHLORIMIPRAMINE AND THYROID EXTRACT IN THE TREATMENT OF PATIENTS SUFFERING FROM DEPRESSION.
149746 04-10
COMPARATIVE STUDY OF THE EFFICACY OF DIBENZEPINE, DOXEPINE AND CHLORIMIPRAMINE IN DEPRESSION.
156565 04-09
UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE.
158771 04-03
EFFECT OF CHLORIMIPRAMINE ON THE METABOLISM OF 5-HYDROXYTRYPTAMINE IN THE RAT BRAIN.
160647 04-03
CHLORIMIPRAMINE: A DOUBLE-BLIND COMPARISON OF INTRAVENOUS VERSUS ORAL ADMINISTRATION IN DEPRESSED PATIENTS.
166729 04-09

CHLORMETHIAZOL
EXPERIENCES WITH CHLORMETHIAZOL (HEMINEURINE).
150747 04-11

CHLORPROMAZINE
INTERACTION OF OXOTREMORINE WITH ATROPINE, CHLORPROMAZINE, CYPROHEPTADINE, IMIPRAMINE AND PHENOXYBENZAMINE ON THE FLEXOR REFLEX OF THE CHRONIC SPINAL DOG.
150318 04-03
DECREASED SENSITIVITY OF SEPTAL MICE TO IMPAIRMENT OF TWO-WAY AVOIDANCE BY CHLORPROMAZINE.
150350 04-04
EFFECTS OF CHLORPROMAZINE AND PHENOBARBITAL ON RAT LIVER AND BRAIN OXIDATIVE N-OXIDASE AND N-DEMETHYLASE ACTIVITIES.
150399 04-03
INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE.
150583 04-03
POTENTIATION OF THE EFFECTS OF CHLORPROMAZINE ON EXPLORATION IN THE RAT BY A PRIOR EXPERIENCE OF THE DRUG.
150671 04-04
TWENTY YEARS OF CHLORPROMAZINE IN PSYCHIATRIC PRACTICE.
150769 04-17
A CONTROLLED DOUBLE-BLIND COMPARISON BETWEEN LOXAPINE SUCCINATE AND CHLORPROMAZINE IN ACUTE NEWLY HOSPITALIZED SCHIZOPHRENIC PATIENTS.
150835 04-08
CHLORPROMAZINE HYDROXYLAMINES IN RED BLOOD CELLS AS MAJOR METABOLITES OF CHLORPROMAZINE IN MAN.
151633 04-13
SYNAPTIC ALTERATIONS IN THE HYPOTHALAMUS OF THE RABBIT FOLLOWING LONG-TERM CHLORPROMAZINE ADMINISTRATION.
152028 04-05
DOPAMINE RECEPTOR BLOCKADE -- A CENTRAL ACTION OF CHLORPROMAZINE ON STRIATAL NEURONS.
152439 04-13
EXTINCTION OF AVOIDANCE IN RATS: THE EFFECTS OF CHLORPROMAZINE AND METHYLPHENIDATE ADMINISTERED IN CONJUNCTION WITH FLOODING RESPONSE (PREVENTION).
152525 04-04
MESORIDAZINE VERSUS CHLORPROMAZINE IN ACUTE SCHIZOPHRENIA: A DOUBLE-BLIND INVESTIGATION.
152708 04-08
BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. I. CHLORPROMAZINE AND THIORIDAZINE.
152867 04-11
PIPERACETAZINE AND CHLORPROMAZINE: A COMPARISON.
152900 04-08
DRUG INTERACTION -- EFFECT OF CHLORPROMAZINE ON THE DISPOSITION OF 8-14C-MESCALINE IN FETAL AND MATERNAL BRAIN AND LIVER IN PREGNANT MOUSE.
155221 04-03
THE TREATMENT OF SEVERE ANXIETY IN OUTPATIENTS: A CONTROLLED STUDY COMPARING CHLORDIAZEPOXIDE AND CHLORPROMAZINE.
155794 04-10
RAPID TRANQUILIZATION OF ACUTELY PSYCHOTIC PATIENTS WITH INTRAMUSCULAR HALOPERIDOL AND CHLORPROMAZINE.
155797 04-09
ACUTE CHLORPROMAZINE POISONING.
156551 04-15
FLUPHENAZINE DECANOATE TRIAL IN CHRONIC INPATIENT SCHIZOPHRENICS FAILING TO ABSORB ORAL CHLORPROMAZINE.
156741 04-08
CHLORPROMAZINE TREATMENT AND GROWTH HORMONE SECRETORY RESPONSES IN ACROMEGALY.
156770 04-11
EFFECTS OF CHLORPROMAZINE AND HALOPERIDOL ON THE DISPOSITION OF MESCALINE-14C IN MICE.
157067 04-04
THE EFFECT OF CHLORPROMAZINE ON DISCRIMINATION PERFORMANCE AND THE PEAK SHIFT.
157072 04-04
THE EFFECT OF CHLORPROMAZINE ON THE PEAK SHIFT IN THE ALBINO RAT.
157084 04-04
THE EFFECTS OF CHLORPROMAZINE AND D-AMPHETAMINE UPON SHOCK ELICITED AGGRESSION.
157148 04-04
INVOLVEMENT OF BRAIN CHOLINERGIC MECHANISMS IN THE ACTION OF CHLORPROMAZINE. (UNPUBLISHED PAPER).
158316 04-03
EFFECTS OF CHLORPROMAZINE AND DIAZEPAM ON OPERANT RESPONSE DURATION IN RATS.
158489 04-04
NEW APPARATUS FOR LEARNING EXPERIMENT AND ITS APPLICATION - THE EFFECT OF CHLORPROMAZINE, RESERPINE AND AMPHETAMINE.
158493 04-04
EFFECT OF CHLORPROMAZINE ON 3H-PHENAZINE METHOSULFATE UPTAKE INTO VARIOUS REGIONS OF RAT BRAIN AND INTO SUBCELLULAR FRACTIONS OF BRAIN AND LIVER (IN VITRO).
160202 04-03
CHILDHOOD ACROMEGALY: SUCCESSFUL THERAPY WITH CONVENTIONAL RADIATION AND EFFECTS OF CHLORPROMAZINE ON GROWTH HORMONE AND PROLACTIN SECRETION.
160653 04-13
THE EFFECT OF RESERPINE, CHLORPROMAZINE AND NEMBUTAL ON LEVELS OF DIPEPTIDES IN RAT BRAIN AND MUSCLE.
160772 04-03
DIFFERENTIAL EFFECTS ON MOUSE BRAIN CATECHOLAMINE TURNOVER OF CHLORPROMAZINE, TRIFLUOPERAZINE AND CLOSELY-RELATED NOT-TRANQUILLIZING ANALOGUES.
161145 04-13
HALOPERIDOL AND CHLORPROMAZINE: A DOUBLE-BLIND CROSSOVER TRIAL AND CLINICAL STUDY IN CHILDREN AND ADOLESCENTS.
161661 04-11
ANTAGONISM OF GUANETHIDINE BY CHLORPROMAZINE.
161907 04-13
EFFECTS OF CHLORPROMAZINE AND PENTOBARBITAL ON PATTERN AND NUMBER OF RESPONSES IN EXTINCTION.
162530 04-04
COMPARATIVE EVALUATION OF INJECTIBLE CHLORPROMAZINE AND PIPERACETAZINE.
163332 04-08
EFFECTS OF CHLORPROMAZINE AND METHAMPHETAMINE ON SOCIABILITY IN RATS.
163752 04-04
ANURIA AFTER THE APPLICATION OF CHLORPROMAZINE.
164679 04-13
CHLORPROMAZINE TREATMENT OF DISTURBED MONKEYS.
164715 04-04
ADRENERGIC RECEPTOR ROLES IN EPINEPHRINE REVERSAL BY CHLORPROMAZINE. (PH.D. DISSERTATION).
165680 04-03
INHIBITION OF URIDINE INCORPORATION INTO RNA IN MAMMALIAN CELLS BY AGENTS AFFECTING THE PROPERTIES OF THE CELL MEMBRANE: CHLORPROMAZINE, DIPYRIDAMOLE AND PHENYLETHANOL.
166700 04-03
CHLORPROMAZINE: EFFECTS OF ANTACIDS ON ITS GASTROINTESTINAL ABSORPTION.
166716 04-13
A CONTROLLED COMPARISON OF METIAPINE AND CHLORPROMAZINE IN CHRONIC SCHIZOPHRENIA.
166718 04-08
EFFECTS OF MODE OF MANAGEMENT ON PLASMA CHLORPROMAZINE IN PSYCHIATRIC PATIENTS.
166721 04-08
POTENTIATING EFFECT OF CHLORPROMAZINE ON GLYCERYL GUAIACOLATE ETHER INDUCED HEMOLYSIS OF RAT, DOG AND HUMAN BLOOD IN VITRO.
166790 04-13

CHLORPROMAZINES
METAL CHELATION OF CHLORPROMAZINES.
166902 04-03

CHOLERA
THE EFFECT OF CHOLERA TOXIN ON THE PHOSPHORYLATION OF PROTEIN IN EPITHELIAL CELLS AND THEIR BRUSH BORDERS.
156879 04-03

CHOLINE
EFFECT OF SEVERAL BENZODIAZEPINES ON CONCENTRATIONS AND SPECIFIC ACTIVITIES OF CHOLINE AND ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
152546 04-03
ACETYLSECOHEMICHOLINIUM-3, A NEW CHOLINE ACETYLTRANSFERASE INHIBITOR USEFUL IN NEUROPHARMACOLOGICAL STUDIES.
156812 04-01

EFFECT OF VARIOUS SEDATIVE DRUGS ON LEVELS OF CHOLINE AND ACETYLCHOLINE AND ON TURNOVER RATE OF ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
162398 04-03

CHOLINERGIC

INFLUENCE OF CHANGES IN ADRENERGIC AND CHOLINERGIC ACTIVITY UPON ACQUISITION OF OPERANT DISCRIMINATION IN ALBINO RATS.
154639 04-04

DRUG-INDUCED CHANGES OF STRIATAL CHOLINERGIC AND DOPAMINERGIC FUNCTIONS IN RATS WITH SPREADING DEPRESSION.
156797 04-03

NORADRENERGIC AND CHOLINERGIC ACTION ON NEURONAL ACTIVITY DURING SELF-STIMULATION BEHAVIOR IN THE RAT.
156810 04-04

EFFECTS OF CHOLINERGIC DRUGS ON PREY KILLING BY RODENTS.
157136 04-04

ALTERATION OF ETHANOL INDUCED CNS DEPRESSION: INEFFECTIVENESS OF DRUGS THAT MODIFY CHOLINERGIC TRANSMISSION. (UNPUBLISHED PAPER).
158058 04-04

INVOLVEMENT OF BRAIN CHOLINERGIC MECHANISMS IN THE ACTION OF CHLORPROMAZINE. (UNPUBLISHED PAPER).
158316 04-03

THE EFFECTS OF CHOLINERGIC DRUGS ON OPERANT BEHAVIOUR OF THE RAT. (PH.D. DISSERTATION).
160910 04-04

EFFECTS OF SOME CHOLINERGIC, ADRENERGIC AND SEROTONINERGIC COMPOUNDS, GLUTAMIC ACID AND GABA ON HIPPOCAMPAL SEIZURES.
161963 04-03

CHOLINESTERASE

STUDIES ON POSSIBLE CORRELATIONS BETWEEN CHOLINESTERASE LEVELS IN MOUSE BRAIN AND BEHAVIOR. (PH.D. DISSERTATION).
159827 04-03

CHOLINOLYTIC

INHIBITION OF STIMULATED CEREBRAL RESPIRATION IN VITRO AND OXYGEN CONSUMPTION IN VIVO IN RATS TREATED BY CHOLINOLYTIC DRUGS.
156639 04-03

CHOOSING

A SCIENTIFIC RATIONALE FOR CHOOSING PATIENTS RATHER THAN NORMAL SUBJECTS FOR PHASE I STUDIES.
167107 04-14

CHORIONIC

HUMAN CHORIONIC GONADOTROPHIN (PREGNYL) IN THE TREATMENT OF NOCTURNAL ENURESIS.
158013 04-13

CHROMATOGRAPHY

SEROTONIN BINDING PROTEINS ISOLATED BY AFFINITY CHROMATOGRAPHY. (UNPUBLISHED PAPER).
158570 04-03

METABOLISM OF AMPHETAMINES. IDENTIFICATION OF N-OXYGENATED PRODUCTS BY GAS CHROMATOGRAPHY AND MASS SPECTROMETRY.
165998 04-06

CHROMOSOMES

LYSERGIC ACID DIETHYLAMIDE: ITS EFFECTS ON HUMAN CHROMOSOMES AND THE HUMAN ORGANISM IN UTERO. A REVIEW OF CURRENT FINDINGS.
156527 04-15

CHRONIC

INTERACTION OF OXOTREMORINE WITH ATROPINE, CHLORPROMAZINE, CYPROHEPTADINE, IMIPRAMINE AND PHENOXYBENZAMINE ON THE FLEXOR REFLEX OF THE CHRONIC SPINAL DOG.
150318 04-03

SLEEPLESSNESS IN ACUTE AND CHRONIC SCHIZOPHRENIA -- RESPONSE TO HALOPERIDOL AND ANTIPARKINSONISM AGENTS.
150351 04-08

DEPTH PERCEPTION IN RATS FOLLOWING ACUTE OR CHRONIC INJECTIONS OF DL-DELTA9-TETRAHYDROCANNABINOL.
150420 04-04

PIPERACETAZINE IN CHRONIC MENTAL PATIENTS: CLINICAL OBSERVATIONS AND NEW URINE COLOR TEST.
150831 04-07

A LONG-TERM PILOT STUDY OF PIPOTHIAZINE PALMITATE IN CHRONIC SCHIZOPHRENIA.
150832 04-08

EFFECTS OF BETA ADRENERGIC BLOCKADE WITH SOTALOL IN CHRONIC ANXIETY.
151162 04-10

CYCLOBENZAPRINE IN THE TREATMENT OF CHRONIC TENSION HEADACHE.
151201 04-11

A NOTE ON THE USE OF ANTICOAGULANT THERAPY IN CHRONIC BRAIN SYNDROME.
152030 04-11

HEATSTROKE IN THREE CHRONIC SCHIZOPHRENICS: CASE REPORTS AND CLINICAL CONSIDERATIONS.
153273 04-15

THE INFLUENCE OF P-CHLOROPHENYLALANINE ON THE EFFECT OF 5-HYDROXYTRYPTOPHAN ON SPINAL SYNAPTIC ACTIVITY IN CHRONIC SPINAL AND RESERPINIZED CATS.
154959 04-03

CROSS-CULTURAL OPPORTUNITIES AND PROBLEMS IN STUDIES OF CHRONIC HASHISH USERS IN GREECE.
155264 04-15

PSYCHOTROPIC DRUGS, DIABETES AND CHRONIC MENTAL PATIENTS.
155888 04-15

FLUPHENAZINE DECANOATE TRIAL IN CHRONIC INPATIENT SCHIZOPHRENICS FAILING TO ABSORB ORAL CHLORPROMAZINE.
156741 04-08

ACUTE AND CHRONIC EFFECTS OF D- AND L-AMPHETAMINE ON SEIZURE SUSCEPTIBILITY IN MICE.
156821 04-03

CHRONIC INTRAVENOUS DRUG ADMINISTRATION IN THE PIGEON.
156827 04-06

A DOUBLE-BLIND COMPARISON OF HALOPERIDOL ORAL CONCENTRATE, HALOPERIDOL SOLUTABS AND PLACEBO IN THE TREATMENT OF CHRONIC SCHIZOPHRENIA.
156939 04-08

TREATMENT OF CHRONIC NEUROSIS BY THE USE OF PIMOZIDE.
157029 04-11

ACUTE AND CHRONIC TOLERANCE TO NICOTINE MEASURED BY ACTIVITY IN RATS.
157151 04-03

EFFECTS OF CHRONIC ADMINISTRATION OF BENZODIAZEPINES ON EPILEPTIC SEIZURES AND BRAIN ELECTRICAL ACTIVITY IN PAPIO-PAPIO.
158290 04-03

PSYCHOSIS WITH CHRONIC BRUCELLOSIS.
159345 04-14

EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF CANNABIS-SATIVA EXTRACT ON THE MOUSE KILLING BEHAVIOR OF RATS.
159568 04-04

RESULTS OF THE EFFECTS OF FLUSPIRILENE ON CHRONIC SCHIZOPHRENIC PATIENTS UNDERGOING OCCUPATIONAL THERAPY.
160216 04-08

BEHAVIORAL AND BIOCHEMICAL EFFECTS OF CHRONIC ADMINISTRATION OF BROMIDE IN THE RAT.
163753 04-04

THE EFFECTS OF CHRONIC FENFLURAMINE ADMINISTRATION ON BEHAVIOUR AND BODY WEIGHT.
163759 04-04

THE EFFECTS OF CHRONIC CANNABIS TREATMENT ON THE AGGRESSIVE BEHAVIOR AND BRAIN 5-HYDROXYTRYPTAMINE LEVELS OF RATS WITH DIFFERENT TEMPERAMENTS.
163778 04-04

OUTPATIENT MANAGEMENT OF CHRONIC SCHIZOPHRENICS WITH FLUPHENAZINE ENANTHATE (PROLIXIN ENANTHATE): A CLINICAL EVALUATION.
164217 04-08

A COMPARATIVE TRIAL OF HALOPERIDOL AND THIORIDAZINE: MANAGEMENT OF CHRONIC SCHIZOPHRENIA.
165621 04-08

EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF DESMETHYLIMIPRAMINE ON THE CONTENT OF NOREPINEPHRINE AND OTHER MONOAMINES IN THE RAT BRAIN.
166027 04-03

MODIFICATION OF SEROTONIN METABOLISM IN RAT BRAIN AFTER ACUTE OR CHRONIC ADMINISTRATION OF MORPHINE.
166698 04-03

A CONTROLLED COMPARISON OF METIAPINE AND CHLORPROMAZINE IN CHRONIC SCHIZOPHRENIA.
166718 04-08

BRAIN BIOGENIC AMINES: DEPLETION BY CHRONIC DIELDRIN EXPOSURE.
166788 04-05

CHRONICALLY

LITHIUM CARBONATE IN THE AMBULATORY, CHRONICALLY PSYCHOTIC PATIENT.
150347 04-08

GLYCOGEN CONTENT AND PHOSPHORYLASE ACTIVITY IN LIVER AND SKELETAL MUSCLE OF NORMAL AND CHRONICALLY MORPHINIZED RATS.
156638 04-03

A CONTROLLED EVALUATION OF PYROVALERONE IN CHRONICALLY FATIGUED VOLUNTEERS.
160217 04-14

THE EFFECTS OF ANTIDEPRESSANT DRUGS ON PAIN RELIEF AND MOOD IN THE CHRONICALLY ILL: A DOUBLE-BLIND STUDY.
163331 04-11

EFFECTS OF CHRONICALLY ADMINISTERED L-DOPA IN NORMAL AND LESIONED CATS.
163767 04-03

CHRONICITY

SKIN CONDUCTANCE BASAL LEVEL AND REACTIVITY IN SCHIZOPHRENIA AS A FUNCTION OF CHRONICITY, PREMORBID ADJUSTMENT, DIAGNOSIS, AND MEDICATION.
154170 04-08

CI-579
CLINICAL AND EEG INVESTIGATIONS WITH CI-579 AND CI-600 (QUANTITATIVE PHARMACOELECTROENCEPHALOGRAPHY AND SLEEP PRINTS).
166733 04-08

CI-600
CLINICAL AND EEG INVESTIGATIONS WITH CI-579 AND CI-600 (QUANTITATIVE PHARMACOELECTROENCEPHALOGRAPHY AND SLEEP PRINTS).
166733 04-08

CINANSERIN
THE EFFECTS OF CINANSERIN, A POTENT SEROTONIN ANTAGONIST, ON THE ACQUISITION OF A RUNNING RESPONSE IN THE RAT.
156808 04-04

CIRCADIAN
CIRCADIAN VARIATION OF THE LETHALITY OF METHADONE.
150386 04-03
SOME OBSERVATIONS ON THE CIRCADIAN RHYTHM OF LOCOMOTOR ACTIVITY OF MICE AFTER DEPLETION OF CEREBRAL MONOAMINES.
158002 04-03
CIRCADIAN RHYTHMS OF DRUG EFFECTIVENESS AND TOXICITY.
166719 04-13

CIRCUITS
ROLE OF MONOAMINES IN THE PSYCHOPATHOLOGY OF MOTORICITY: IMPLICATED NEURAL CIRCUITS IN THE PSYCHOPATHOLOGY OF PARKINSONIAN SYNDROMES.
150219 04-11

CIRCULATION
SEROTONIN METABOLISM IN RAT BRAIN AFTER SURGICAL DIVERSION OF THE PORTAL VENOUS CIRCULATION.
159449 04-03
HIPPOCAMPAL EPILEPSY PRODUCED BY OUABAIN: STUDIES OF CEREBRAL CIRCULATION AND IONIC METABOLISM.
160649 04-03
CENTRAL NEUROGENIC CONTROL OF CEREBRAL CIRCULATION.
162136 04-03

CITRIC
THE EFFECT OF PHENOBARBITONE ANESTHESIA UPON SOME ORGANIC PHOSPHATES, GLYCOLYTIC METABOLITES AND CITRIC ACID CYCLE ASSOCIATED INTERMEDIATES OF THE RAT BRAIN.
160226 04-03

CLAIMED
DRUG-INDUCED ATTENUATION OF ALCOHOL CONSUMPTION: A REVIEW AND EVALUATION OF CLAIMED, POTENTIAL OR CURRENT THERAPIES.
154690 04-11

CLASS
TRIAZOLOBENZODIAZEPINES, A NEW CLASS OF CENTRAL NERVOUS SYSTEM DEPRESSANT COMPOUNDS.
158279 04-03

CLASSICAL
CLASSICAL AVERSIVE CONDITIONING IN CATS UNDER VARIOUS NEUROMUSCULAR BLOCKING DRUGS.
153217 04-04

CLASSIFICATION
CLASSIFICATION OF EPILEPSY FROM A THERAPEUTIC ASPECT.
151012 04-11

CLEAR
CONSTITUENTS OF CANNABIS-SATIVA L. III: CLEAR AND DISCRETE SEPARATION OF CANNABIDIOL AND CANNABICHROMENE.
157301 04-17

CLEARANCE
DIURNAL VARIATIONS OF LITHIUM CLEARANCE IN THE RAT.
160220 04-03

CLIENT
EFFECTS OF MEDICATION ON THE CASEWORKER CLIENT RELATIONSHIP.
164429 04-17

CLIMACTERIC
ESTROGEN IN TREATMENT OF THE MALE CLIMACTERIC.
163216 04-11

CLINIC
ON SOME NEW POSSIBILITIES FOR THE THERAPEUTIC USE OF TEGRETOL IN THE PSYCHIATRIC CLINIC.
151809 04-11

CLINICAL
CLINICAL EXPERIENCE WITH A COMBINATION OF CHLORIMIPRAMINE AND THYROID EXTRACT IN THE TREATMENT OF PATIENTS SUFFERING FROM DEPRESSION.
149746 04-10
CLINICAL AND EXPERIMENTAL STUDY OF THE ALCOHOL - THIOPROPERAZINE COMBINATION.
150623 04-17
5-HYDROXYTRYPTAMINE SUPERSENSITIVITY AS A NEW THEORY OF HEADACHE AND CENTRAL PAIN: A CLINICAL PHARMACOLOGICAL APPROACH WITH P-CHLOROPHENYLALANINE.
150670 04-15
CLINICAL USE OF PSYCHODRUGS.
150776 04-10
HALOPERIDOL VERSUS DIAZEPAM: A DOUBLE-BLIND CROSSOVER CLINICAL TRIAL.
150790 04-10
PIPERACETAZINE IN CHRONIC MENTAL PATIENTS: CLINICAL OBSERVATIONS AND NEW URINE COLOR TEST.
150831 04-07
CLINICAL EVALUATION OF TWO PROPOSED ANTIDEPRESSANTS.
150834 04-07
METHAQUALONE: METABOLIC, KINETIC, AND CLINICAL PHARMACOLOGIC OBSERVATIONS.
151154 04-13
CLINICAL EXPERIMENTS WITH A NEW PSYCHOTROPIC: SULPIRIDE.
151263 04-07
EVALUATION OF THE THERAPEUTIC SPECTRUM OF ENTUMINE-CHLORO-2-11-DIBENZOTHIAZEPINE. STUDY BASED ON 50 CLINICAL CASES OBSERVED.
151305 04-07
ANALYSIS OF CLINICAL EXPERIENCES OBTAINED IN 100 CASES OF ACUTE APAURINE DIAZEPAM INTOXICATION.
152085 04-15
THE RELEVANCE OF IMMUNOLOGIC STUDIES ON EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) TO CLINICAL INVESTIGATIONS ON MULTIPLE SCLEROSIS. (UNPUBLISHED PAPER).
152545 04-03
HEATSTROKE IN THREE CHRONIC SCHIZOPHRENICS: CASE REPORTS AND CLINICAL CONSIDERATIONS.
153273 04-15
THE PROBLEM OF CLINICAL ACTIVITY OF LONG-ACTING NEUROLEPTICS.
153278 04-10
DECLINING-DOSE DRUG DESENSITIZATION FOR PHOBIAS: CLINICAL AND PSYCHOPHYSIOLOGICAL STUDIES.
153607 04-10
CLINICAL EVALUATION OF IMIPRAMINE-N-OXIDE (IPNO) IN THE TREATMENT OF DEPRESSIVE STATES.
154979 04-09
THE RELATIONSHIP BETWEEN BLOOD LEVELS OF DIFFERENT FORMS OF BUTAPERAZINE AND CLINICAL RESPONSE.
155055 04-08
OBESITY DEPRESSION: CLINICAL EVALUATION WITH A NEW ANOREXIGENIC AGENT.
155886 04-10
CLINICAL RESPONSE TO AMITRIPTYLINE AND CHLORDIAZEPOXIDE AMITRIPTYLINE (LIMBITROL) IN ANXIETY DEPRESSIVE STATES: A DOUBLE-BLIND STUDY.
155887 04-10
THE CLINICAL PHARMACOLOGY OF IMIPRAMINE: IMPLICATIONS FOR THERAPEUTICS.
156157 04-15
A DOUBLE-BLIND CLINICAL TRIAL OF THE NEW HYPNOTIC MANDRAX.
156359 04-07
CLINICAL PHARMACOLOGY.
156497 04-17
DOUBLE-BLIND TEST OF THREE ANTIDEPRESSANTS. SECOND COMMUNICATION: CLINICAL COMPARISON OF NOXIPTILINE, NOR-NOXIPTILINE AND AMITRIPTYLINE WITH THE AMP SYSTEM.
156849 04-09
SYMPTOMATIC VOLUNTEERS: ANOTHER PATIENT DIMENSION FOR CLINICAL TRIALS.
156938 04-16
CLINICAL PEARLS: OVERDOSE OF PSYCHOTROPIC DRUGS.
158261 04-15
ANTIANXIETY DRUGS IN CLINICAL PRACTICE.
158284 04-14
EXPERIMENTAL AND CLINICAL STUDIES OF THE ANTICONVULSANT PROPERTIES OF A BENZODIAZEPINE DERIVATIVE, CLONAZEPAM (RO-5-4023).
158291 04-13
CLINICAL USE OF DIAZEPAM AN INTENSIVE THERAPY: INDICATIONS AND RESULTS.
158297 04-17
SLEEP LABORATORY AND CLINICAL STUDIES OF THE EFFECTS OF BENZODIAZEPINES ON SLEEP: FLURAZEPAM, DIAZEPAM, CHLORDIAZEPOXIDE, AND RO-5-4200.
158299 04-14
SLEEP LABORATORY AND CLINICAL STUDIES WITH FLURAZEPAM.
158300 04-14
RELATIONSHIP OF CLINICAL AND DEMOGRAPHIC VARIABLES TO COMMUNITY ADJUSTMENT OF SCHIZOPHRENIC OUTPATIENTS ON CHEMOTHERAPY. (ED. D. DISSERTATION).
158779 04-08
CLINICAL TOXICOLOGY VII. POISONING BY SALICYLATES, PARACETAMOL, TRICYCLIC ANTIDEPRESSANTS AND A MISCELLANY OF DRUGS.
159588 04-15
PSYCHOMETRIC TESTS AND CLINICAL EXPERIMENTATION IN PSYCHIATRY.
160315 04-14
COMPREHENSIVE CLINICAL STUDIES WITH TRAZODONE.
160643 04-11

A CONTROLLED STUDY OF THE CLINICAL EFFECTS OF AMANTADINE HYDROCHLORIDE (SYMMETREL).
160644 04-11
HALOPERIDOL AND CHLORPROMAZINE: A DOUBLE-BLIND CROSSOVER TRIAL AND CLINICAL STUDY IN CHILDREN AND ADOLESCENTS.
161661 04-11
INTRACELLULAR LITHIUM CONCENTRATION AND CLINICAL RESPONSE: TOWARDS A MEMBRANE THEORY OF DEPRESSION.
161732 04-13
CLINICAL JUDGMENT VS. MULTIVARIATE FORMULAE IN ASSIGNMENT OF PSYCHOTROPIC DRUGS.
161818 04-14
AN UNCONTROLLED CLINICAL TRIAL WITH CLOMIPRAMINE IN THE TREATMENT OF DEPRESSED PATIENTS.
163683 04-09
OUTPATIENT MANAGEMENT OF CHRONIC SCHIZOPHRENICS WITH FLUPHENAZINE ENANTHATE (PROLIXIN ENANTHATE): A CLINICAL EVALUATION.
164217 04-08
CLINICAL EXPERIENCES WITH THE NEW ANTIDEPRESSANT MAPROTILIN 34276-BA.
164681 04-09
MEBUTAMATE AS A HYPNOTIC: CLINICAL TRIAL AND STATISTICAL CONSIDERATIONS.
166722 04-13
CLINICAL AND EEG INVESTIGATIONS WITH CI-579 AND CI-600 (QUANTITATIVE PHARMACOELECTROENCEPHALOGRAPHY AND SLEEP PRINTS).
166733 04-08
CLINICAL PHARMACOLOGY OF SLEEP: A CRITICAL REVIEW OF ALL-NIGHT ELECTROENCEPHALOGRAPHIC STUDIES.
166734 04-08
EARLY CLINICAL DRUG EVALUATION UNITS REPORTS.
166878 04-07
LU-5-003 IN ANTIDEPRESSIVE THERAPY. A CONTROLLED CLINICAL TEST WITH SIMULTANEOUS MEASUREMENT OF PHARMACOKINETIC PARAMETERS. PRELIMINARY REPORT.
166982 04-13
FLURAZEPAM VERSUS DIAZEPAM IN ANESTHESIA: A CLINICAL STUDY.
167232 04-13
ADVANCES IN FORENSIC AND CLINICAL TOXICOLOGY.
167246 04-15

CLINICOIMMUNOLOGIC
ON CLINICOIMMUNOLOGIC CORRELATIONS IN THE EVALUATION OF REMISSIONS IN PATIENTS WITH DELAYED EPILEPTIC PSYCHOSES.
151805 04-11

CLOMIPRAMINE
THE USE OF CLOMIPRAMINE IN PSYCHIATRY: REFLECTIONS ON FOUR YEARS OF EXPERIMENTS.
157234 04-09
AN UNCONTROLLED CLINICAL TRIAL WITH CLOMIPRAMINE IN THE TREATMENT OF DEPRESSED PATIENTS.
163683 04-09

CLONAZEPAM
EXPERIMENTAL AND CLINICAL STUDIES OF THE ANTICONVULSANT PROPERTIES OF A BENZODIAZEPINE DERIVATIVE, CLONAZEPAM (RO-5-4023).
158291 04-13

CLONIDINE
INTERACTION BETWEEN CLONIDINE AND DESIPRAMINE IN MAN.
150827 04-15
DESMETHYLIMIPRAMINE AND THE HYPOTENSIVE ACTION OF CLONIDINE IN THE RABBIT.
152142 04-03
EFFECT OF CLONIDINE ON THE 5-HYDROXYTRYPTAMINE AND 5-HYDROXYINDOLEACETIC ACID BRAIN LEVELS.
166695 04-03

CLOPENTHIXOL
DRUG ALLERGY TO THIOXANTHENE, MANIFESTED BY THE MORPHOLOGICAL PICTURE OF ERYTHEMA EXSUDATIVUM MULTIFORME, AS A RESULT OF TAKING CLOPENTHIXOL.
152089 04-15

CLORAZEPATE
CLORAZEPATE DIPOTASSIUM: A NEW BENZODIAZEPINE ANTIANXIETY AGENT.
156940 04-10
COMPARATIVE PSYCHOPHYSIOLOGICAL AND MOOD EFFECTS OF DIAZEPAM AND DIPOTASSIUM CLORAZEPATE.
163782 04-13

CLOXAZOLAM
EFFECTS OF CS-386 AND CLOXAZOLAM ON CONDITIONED BEHAVIOR OF PAIRED MONKEYS.
158491 04-04

CLOZAPINE
EFFECT OF CLOZAPINE ON THE TURNOVER OF DOPAMINE IN THE CORPUS-STRIATUM AND IN THE LIMBIC SYSTEM.
156765 04-03

CNS
SYNTHESIS AND CNS DEPRESSANT ACTIVITY OF IMIDAZOLINONE GLYOXYLATES.
150415 04-02
CNS EFFECTS OF PROPRANOLOL IN MAN.
150665 04-08
MODIFICATION OF THE CNS CYCLIC AMP RESPONSE BY DRUGS.
152664 04-03
THYROID HORMONES AND CATECHOLAMINE MACROMOLECULAR MECHANISMS IN CNS.
155260 04-03
PHYSICOCHEMICAL STUDIES ON A NEW POTENT CNS DEPRESSANT, 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA).
155553 04-01
ALTERATION OF ETHANOL INDUCED CNS DEPRESSION: INEFFECTIVENESS OF DRUGS THAT MODIFY CHOLINERGIC TRANSMISSION. (UNPUBLISHED PAPER).
158058 04-04
LONG-TERM RECOVERY OF SEROTONIN CONCENTRATIONS IN THE RAT CNS FOLLOWING 5,6 DIHYDROXYTRYPTAMINE.
163697 04-03
CONVULSIONS ELICITED BY HANDLING: A SENSITIVE METHOD OF MEASURING CNS EXCITATION IN MICE TREATED WITH RESERPINE OR CONVULSANT DRUGS.
163748 04-03
NOREPINEPHRINE (NE) TURNOVER IN THE CENTRAL NERVOUS SYSTEM (CNS) -- ESTIMATED IN THE RAT FROM URINARY 3-METHOXY-4-HYDROXYPHENYLGLYCOL (MHPG) EXCRETION. (UNPUBLISHED PAPER
165941 04-03

COCAINE
FIXED-INTERVAL SCHEDULES OF INTRAVENOUS COCAINE PRESENTATION IN RATS.
155410 04-04
FIXED-INTERVAL SCHEDULE OF COCAINE REINFORCEMENT: EFFECT OF DOSE AND INFUSION DURATION.
155411 04-04
THE EFFECTS OF STIMULANTS AND DEPRESSANTS ON COCAINE SELF-ADMINISTRATION BEHAVIOR IN THE RHESUS MONKEY.
157998 04-04
COMPARABLE BEHAVIOR MAINTAINED UNDER FIXED-RATIO AND SECOND-ORDER SCHEDULES OF FOOD PRESENTATION, COCAINE INJECTION OR D-AMPHETAMINE INJECTION IN THE SQUIRREL MONKEY.
159367 04-04
INTERACTION OF COCAINE AND IPRONIAZID ON THE H3-NOREPINEPHRINE UPTAKE MECHANISM ON ISOLATED STRIP VENTRICLE OF FROG HEART.
165412 04-03

CODE
SYNTHESIS OF SCOTOPHOBIN. A MEMORY CODE WORD.
156872 04-01

CODEINE
SELF-ADMINISTRATION OF ACETYLSALICYLIC ACID AND COMBINATIONS WITH CODEINE AND CAFFEINE IN RHESUS MONKEYS.
157064 04-04

COFFEE
PSYCHOPHARMACOLOGICAL ASPECTS OF COFFEE AND OF CAFFEINE.
149749 04-14

COGNITIVE
THE EFFECT OF A STIMULANT DRUG (METHAMPHETAMINE) ON COGNITIVE IMPULSIVITY, PLANNING, NEW LEARNING, AND SOCIAL BEHAVIOR IN HYPERACTIVE CHILDREN. (PH.D. DISSERTATION).
149717 04-14
SHORT-TERM EFFECTS OF MARIJUANA SMOKING ON COGNITIVE BEHAVIOR IN EXPERIENCED MALE USERS.
163755 04-14

COLLABORATIVE
LEVODOPA IN PARKINSONS DISEASE -- AUSTRALIAN COLLABORATIVE TRIAL.
150789 04-14
PROBLEMS AND PROFITS OF CROSS-NATIONAL COLLABORATIVE STUDIES.
155265 04-17

COLLECTING
CORTICAL CUPS FOR COLLECTING FREE ACETYLCHOLINE IN AWAKE RATS. (UNPUBLISHED PAPER)
158057 04-06

COLOR
PIPERACETAZINE IN CHRONIC MENTAL PATIENTS: CLINICAL OBSERVATIONS AND NEW URINE COLOR TEST.
150831 04-07

COLOURED
COLOURED LILLIPUTIAN HALLUCINATIONS WITH AMANTADINE.
163694 04-15

COMA
RIGIDITY, HYPERPYREXIA AND COMA FOLLOWING FLUPHENAZINE ENANTHATE.
150669 04-15

COMBATIVE
EFFECT OF LITHIUM ON COMBATIVE BEHAVIOR IN HUMANS.
162364 04-14

COMBINATION
CLINICAL EXPERIENCE WITH A COMBINATION OF CHLORIMIPRAMINE AND THYROID EXTRACT IN THE TREATMENT OF PATIENTS SUFFERING FROM DEPRESSION.
149746 04-10
A STUDY OF THE TREATMENT OF REACTIVE AND NEUROTIC DEPRESSIONS BY A COMBINATION OF AMITRIPTYLINE AND PERPHENAZINE.
150255 04-09
CLINICAL AND EXPERIMENTAL STUDY OF THE ALCOHOL - THIOPROPERAZINE COMBINATION.
150623 04-17
PHARMACOLOGICAL TREATMENT OF CEREBRAL ARTERIOSCLEROSIS WITH A NEW DRUG COMBINATION.
151268 04-11
TREATMENT OF PARKINSONISM WITH A COMBINATION OF LEVODOPA AND THE DECARBOXYLASE INHIBITOR RO-4-4602 (A COMPARISON WITH LEVODOPA TREATMENT ALONE).
151689 04-07
TREATMENT OF PARKINSONS SYNDROME WITH A COMBINATION OF LEVODOPA AND THIETHYL-PERAZINE -- A PRELIMINARY STUDY.
154783 04-11
EFFECTS OF RESERPINE, 6-HYDROXYDOPAMINE, P-CHLOROPHENYLALANINE AND A COMBINATION OF THESE SUBSTANCES ON THE GROOMING BEHAVIOUR OF MICE.
158001 04-04
EFFECTS OF CHLORDIAZEPOXIDE ALONE AND IN COMBINATION WITH AMPHETAMINE ON ANIMAL AND HUMAN BEHAVIOR.
158283 04-14

COMBINATIONS
SELF-ADMINISTRATION OF ACETYLSALICYLIC ACID AND COMBINATIONS WITH CODEINE AND CAFFEINE IN RHESUS MONKEYS.
157064 04-04
HYPERPYREXIA FROM DRUG COMBINATIONS.
160965 04-15
BEHAVIORAL EFFECTS OF DIAZEPAM, PENTOBARBITAL, METHAMPHETAMINE AND THEIR COMBINATIONS ON DRL 20SEC FOR WATER.
165647 04-04

COMBINED
BRAIN CATECHOLAMINES AND THEIR METABOLITES IN PARKINSONIAN PATIENTS: TREATMENT WITH LEVODOPA ALONE OR COMBINED WITH A DECARBOXYLASE INHIBITOR.
150218 04-13
USEFULNESS OF COMBINED PHARMACOLOGICAL TREATMENT IN ENDOGENOUS DEPRESSIVE SYNDROMES.
150748 04-09
COMBINED THYROID (TRIIODOTHYRONINE) TRICYCLIC ANTIDEPRESSANT TREATMENT IN DEPRESSIVE STATES.
154980 04-09
ACID MONOAMINE METABOLITES IN THE CEREBROSPINAL FLUID OF PARKINSONIAN PATIENTS TREATED WITH LEVODOPA ALONE OR COMBINED WITH DECARBOXYLASE INHIBITOR.
160650 04-13
REDUCTION OF HYPERACTIVE BEHAVIOR BY CONDITIONING PROCEDURES ALONE AND COMBINED WITH METHYLPHENIDATE (RITALIN).
161049 04-14

COMMUNICATION
TRICYCLIC ANTIDEPRESSANTS AND LIMB REDUCTION DEFORMITIES: A FURTHER COMMUNICATION FROM THE AUSTRALIAN DRUG EVALUATION COMMITTEE.
151932 04-15
DOUBLE-BLIND TEST OF THREE ANTIDEPRESSANTS. SECOND COMMUNICATION: CLINICAL COMPARISON OF NOXIPTILINE, NOR-NOXIPTILINE AND AMITRIPTYLINE WITH THE AMP SYSTEM.
156849 04-09

COMMUNITY
RELATIONSHIP OF CLINICAL AND DEMOGRAPHIC VARIABLES TO COMMUNITY ADJUSTMENT OF SCHIZOPHRENIC OUTPATIENTS ON CHEMOTHERAPY. (ED. D. DISSERTATION).
158779 04-08

COMPANIES
EXPERIMENTS BEHIND BARS: DOCTORS, DRUG COMPANIES, AND PRISONERS.
156835 04-07

COMPARABLE
COMPARABLE BEHAVIOR MAINTAINED UNDER FIXED-RATIO AND SECOND-ORDER SCHEDULES OF FOOD PRESENTATION, COCAINE INJECTION OR D-AMPHETAMINE INJECTION IN THE SQUIRREL MONKEY.
159367 04-04

COMPARING
THE TREATMENT OF SEVERE ANXIETY IN OUTPATIENTS: A CONTROLLED STUDY COMPARING CHLORDIAZEPOXIDE AND CHLORPROMAZINE.
155794 04-10
PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09
COMPARING TERATOGENICITY IN MAN AND MONKEY.
163011 04-15

COMPARISON
COMPARISON OF L-DOPA WITH ITS ASSOCIATION WITH AN L-DOPA DECARBOXYLASE INHIBITOR IN THE MANAGEMENT OF PARKINSONS DISEASE.
150631 04-15
A CONTROLLED DOUBLE-BLIND COMPARISON BETWEEN LOXAPINE SUCCINATE AND CHLORPROMAZINE IN ACUTE NEWLY HOSPITALIZED SCHIZOPHRENIC PATIENTS.
150835 04-08
COMPARISON BETWEEN O-AMINOPHENOL GLUCURONIDATION IN LIVER SLICES AND HOMOGENATES FROM CONTROL AND PHENOBARBITAL TREATED WISTAR AND GUNN RATS.
151351 04-03
TREATMENT OF PARKINSONISM WITH A COMBINATION OF LEVODOPA AND THE DECARBOXYLASE INHIBITOR RO-4-4602 (A COMPARISON WITH LEVODOPA TREATMENT ALONE).
151689 04-07
A DOUBLE-BLIND COMPARISON OF HALOPERIDOL (HALDOL) AND THIORIDAZINE (MELLARIL) IN OUTPATIENT CHILDREN.
152212 04-11
PIPERACETAZINE AND CHLORPROMAZINE: A COMPARISON.
152900 04-08
COMPARISON OF AMANTADINE, ORPHENADRINE, AND PLACEBO IN THE CONTROL OF PHENOTHIAZINE INDUCED PARKINSONISM.
153122 04-15
COMPARISON OF CHLORDIAZEPOXIDE AND FOOD DEPRIVATION IN RATS ON A FIXED-RATIO SATIATION SCHEDULE.
153599 04-04
A COMPARISON OF THE STIMULUS PROPERTIES OF MESCALINE AND 2,3,4 TRIMETHOXYPHENYLETHYLAMINE.
156645 04-04
COMPARISON OF THE EFFECT OF DELTA9-TETRAHYDROCANNABINOL, 11-HYDROXY-DELTA9-TETRAHYDROCANNABINOL, AND ETHANOL ON THE ELECTROPHYSIOLOGICAL ACTIVITY OF THE GIANT AXON OF THE SQUID.
156816 04-03
DOUBLE-BLIND TEST OF THREE ANTIDEPRESSANTS. SECOND COMMUNICATION: CLINICAL COMPARISON OF NOXIPTILINE, NOR-NOXIPTILINE AND AMITRIPTYLINE WITH THE AMP SYSTEM.
156849 04-09
A DOUBLE-BLIND COMPARISON OF HALOPERIDOL ORAL CONCENTRATE, HALOPERIDOL SOLUTABS AND PLACEBO IN THE TREATMENT OF CHRONIC SCHIZOPHRENIA.
156939 04-08
COMPARISON OF THE BEHAVIORAL DEPRESSANT EFFECTS OF BIOGENIC AMINE DEPLETING AND NEUROLEPTIC AGENTS FOLLOWING VARIOUS 6-HYDROXYDOPAMINE TREATMENTS.
157140 04-04
FLUPHENAZINE ENANTHATE AND FLUPHENAZINE DECANOATE: A COMPARISON OF THEIR DURATION OF ACTION AND MOTOR SIDE-EFFECTS.
161905 04-09
A COMPARISON OF THE METABOLIC EFFECTS OF GROWTH HORMONE AND GROWTH FACTOR FROM SPIROMETRA-MANSONOIDES ON RAT LIVER IN VIVO. (UNPUBLISHED PAPER).
162391 04-03
COMPARISON OF EFFECTS OF NORADRENALINE AND HISTAMINE WITH CYCLIC AMP ON BRAIN STEM NEURONES.
162893 04-03
COMPARISON OF EFFECTS OF L-DOPA, AMPHETAMINE AND APOMORPHINE ON FIRING RATE OF RAT DOPAMINERGIC NEURONES.
162974 04-03
A COMPARISON OF THE PHARMACOLOGICAL ACTIVITY OF DELTA9-TETRAHYDROCANNABINOL AND ITS MONOHYDROXYLATED METABOLITES IN MAN.
163022 04-13
DOUBLE-BLIND COMPARISON OF HALOPERIDOL AND THIORIDAZINE IN TREATMENT RESISTANT PSYCHONEUROTIC OUTPATIENTS.
163337 04-10
COMPARISON OF BEHAVIORAL EFFECTS OF NICOTINE, D-AMPHETAMINE, CAFFEINE AND DIMETHYLHEPTYL TETRAHYDROCANNABINOL IN SQUIRREL MONKEYS.
163750 04-04
THE MANAGEMENT OF SEVERE AGORAPHOBIA: A COMPARISON OF IPRONIAZID AND SYSTEMATIC DESENSITIZATION.
163751 04-10
A COMPARISON OF THE EFFECTS OF D-AMPHETAMINE AND MORPHINE UPON THE LOCOMOTOR ACTIVITY OF MICE TREATED WITH DRUGS WHICH ALTER BRAIN CATECHOLAMINE CONTENT.
163769 04-04
A CONTROLLED COMPARISON OF METIAPINE AND CHLORPROMAZINE IN CHRONIC SCHIZOPHRENIA.
166718 04-08

CHLORIMIPRAMINE: A DOUBLE-BLIND COMPARISON OF INTRAVENOUS VERSUS ORAL ADMINISTRATION IN DEPRESSED PATIENTS.
166729 04-09

A COMPARISON OF THE EFFECTS OF SOTALOL AND OF THE ISOMERS OF PRACTOLOL ON ADRENERGIC NERVOUS ACTIVITY.
166789 04-03

A COMPARISON OF COMMON INTERATOMIC DISTANCES IN SEROTONIN AND SOME HALLUCINOGENIC DRUGS.
167042 04-01

COMPETING

THE EFFECTS OF PIMOZIDE ON DOMINANT SUBORDINATE BEHAVIOUR IN WISTAR RATS COMPETING FOR FOOD.
163758 04-04

COMPLEXITY

THE COMPLEXITY OF THE INHIBITORY ACTION OF DICOUMAROL ON THE MIXED FUNCTION OXIDASE SYSTEM OF RAT LIVER MICROSOMES.
150582 04-03

COMPLICATED

SEVERE INFECTIOUS HEPATITIS COMPLICATED WITH ACUTE PSYCHOSIS DURING HYDROCORTISONE TREATMENT.
151380 04-11

COMPLICATIONS

SIGNIFICANCE AND COMPLICATIONS OF THE CULUTURAL VARIABLES IN PSYCHOPHARMACOLOGICAL RESEARCH.
155267 04-17

PSYCHIATRIC COMPLICATIONS OF MEDICAL DRUGS.
160942 04-15

PSYCHIATRIC COMPLICATIONS OF EVERYDAY DRUGS.
162382 04-17

PSYCHIATRIC COMPLICATIONS OF MEDICAL DRUGS.
163221 04-17

COMPOSITION

CHILEAN MARIHUANA: CHEMICAL COMPOSITION AND PHARMACOLOGICAL ASPECTS.
150650 04-01

COMPREHENSIVE

COMPREHENSIVE CLINICAL STUDIES WITH TRAZODONE.
160643 04-11

COMPULSIVE

ANTIDEPRESSANTS AS A PROPHYLAXIS AGAINST DEPRESSION IN THE OBSESSIVE COMPULSIVE PERSON.
163329 04-10

COMPUTER

COMPUTER ASSIGNMENT OF PSYCHOTROPIC DRUGS.
152899 04-17

CONCENTRATE

POSITIVE OUTCOME IN PSYCHIATRIC CRISIS: EVALUATION OF THIORIDAZINE CONCENTRATE IN AN INTENSIVE, SHORT-TERM PSYCHIATRIC PROGRAM.
155793 04-10

A DOUBLE-BLIND COMPARISON OF HALOPERIDOL ORAL CONCENTRATE, HALOPERIDOL SOLUTABS AND PLACEBO IN THE TREATMENT OF CHRONIC SCHIZOPHRENIA.
156939 04-08

CONCENTRATION

CONCENTRATION INGESTION RELATIONS OF MORPHINE ADULTERATED FOOD AND MORPHINE SOLUTION.
150321 04-06

ENHANCEMENT OF BRAIN L-DOPA CONCENTRATION WITH ALPHA-CHYMOTRYPSIN.
152870 04-03

INTRACELLULAR LITHIUM CONCENTRATION AND CLINICAL RESPONSE: TOWARDS A MEMBRANE THEORY OF DEPRESSION.
161732 04-13

EFFECT OF MORPHINE ON THE RNA AND ATP CONCENTRATION OF BRAIN STRUCTURES OF THE RAT.
167043 04-03

CONCENTRATIONS

CATECHOLAMINE CONCENTRATIONS IN DISCRETE AREAS OF THE RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
151629 04-03

EFFECT OF SEVERAL BENZODIAZEPINES ON CONCENTRATIONS AND SPECIFIC ACTIVITIES OF CHOLINE AND ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
152546 04-03

EFFECTS OF MORPHINE ON CATECHOLAMINE TURNOVER, CYCLIC 3,5 AMP CONCENTRATIONS AND TYROSINE HYDROXYLASE ACTIVITY IN RAT TISSUES. (UNPUBLISHED PAPER).
152549 04-03

NEUROCHEMICAL TERATOLOGY: 5-HYDROXYINDOLE CONCENTRATIONS IN DISCRETE AREAS OF RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
156751 04-03

SERUM CONCENTRATIONS OF DIAZEPAM IN SUBJECTS WITH EPILEPSY.
158152 04-11

THE PREDICTION OF BRAIN LITHIUM CONCENTRATIONS FROM PLASMA OR ERYTHROCYTE MEASURES.
161731 04-03

LONG-TERM RECOVERY OF SEROTONIN CONCENTRATIONS IN THE RAT CNS FOLLOWING 5,6 DIHYDROXYTRYPTAMINE.
163697 04-03

SERUM AND BRAIN CONCENTRATIONS OF PENTAZOCINE IN RELATION TO ANALGESIC ACTIVITY IN MICE.
167018 04-03

CONDITIONAL

CONTROL OF MORPHINE WITHDRAWAL HYPOTHERMIA BY CONDITIONAL STIMULI.
153098 04-03

CONDITIONED

CONDITIONED AVERSION TO A PREFERRED SOLUTION FOLLOWING METHAMPHETAMINE INJECTIONS.
153105 04-04

DOPA REVERSAL OF HYPOXIA INDUCED DISRUPTION OF THE CONDITIONED AVOIDANCE RESPONSE.
155904 04-04

EFFECTS OF CS-386 AND CLOXAZOLAM ON CONDITIONED BEHAVIOR OF PAIRED MONKEYS.
158491 04-04

NATURE OF THE EFFECT OF NEUROLEPTICS AND ANTIDEPRESSANTS ON CONDITIONED AND UNCONDITIONED REFLEXES.
160537 04-13

EFFECTS OF VENTROMEDIAL HYPOTHALAMIC LESIONS ON CONDITIONED SUCROSE AVERSIONS IN RATS.
162673 04-02

CONDITIONING

AVERSIVE CONDITIONING BY PSYCHOACTIVE DRUGS: EFFECTS OF MORPHINE, ALCOHOL AND CHLORDIAZEPOXIDE.
153107 04-04

CLASSICAL AVERSIVE CONDITIONING IN CATS UNDER VARIOUS NEUROMUSCULAR BLOCKING DRUGS.
153217 04-04

DYNAMICS OF DRUG DEPENDENCE: IMPLICATIONS OF A CONDITIONING THEORY FOR RESEARCH AND TREATMENT.
155239 04-17

PHARMACOLOGICAL STUDIES ON THE HYPOTHALAMUS (REPORT 7). CONDITIONING OF HYPOTHALAMIC BEHAVIORAL RESPONSES AND EFFECTS OF PSYCHOTROPIC DRUGS.
158488 04-04

REDUCTION OF HYPERACTIVE BEHAVIOR BY CONDITIONING PROCEDURES ALONE AND COMBINED WITH METHYLPHENIDATE (RITALIN).
161049 04-14

CONDITIONS

THE EFFECT OF SOME SUBSTANCES OF THE PHENOTHIAZINE SERIES AND OF ALPHA-ADRENERGIC BLOCKING AGENTS ON SPINAL CORD ACTIVITY UNDER CONDITIONS OF DISRUPTION OF INHIBITORY MECHANISMS BY TETANUS TOXIN.
162921 04-03

CONDUCTANCE

SKIN CONDUCTANCE BASAL LEVEL AND REACTIVITY IN SCHIZOPHRENIA AS A FUNCTION OF CHRONICITY, PREMORBID ADJUSTMENT, DIAGNOSIS, AND MEDICATION.
154170 04-08

CONFIGURATION

HUMAN METABOLITE OF NALTREXONE (N-CYCLOPROPYLMETHYLNOROXYMORPHONE) WITH A NOVEL C-6 ISOMORPHINE CONFIGURATION. (UNPUBLISHED PAPER).
152201 04-13

CONFLICT

EFFECTS OF PROPRANOLOL AND CHLORDIAZEPOXIDE ON CONFLICT BEHAVIOR IN RATS.
158005 04-04

EFFECTS OF BEHAVIORALLY ACTIVE DRUGS IN A CONFLICT PUNISHMENT PROCEDURE IN RATS.
158281 04-04

CONFORMATIONALLY

MICROIONTOPHORETIC STUDIES OF CONFORMATIONALLY RESTRICTED ANALOGUES OF GAMMA-AMINOBUTYRATE OF RAT HIPPOCAMPAL NEURONS. (UNPUBLISHED PAPER).
151435 04-03

CONJUNCTION

EXTINCTION OF AVOIDANCE IN RATS: THE EFFECTS OF CHLORPROMAZINE AND METHYLPHENIDATE ADMINISTERED IN CONJUNCTION WITH FLOODING RESPONSE (PREVENTION).
152525 04-04

CONSCIOUS

EFFECT OF P-CHLOROPHENYLALANINE ON THE INTERACTION BETWEEN PHENELZINE AND PETHIDINE IN CONSCIOUS RABBITS.
160201 04-04

SPONTANEOUS RELEASE AND DURING METRAZOL CONVULSIONS OF 5-HYDROXYTRYPTAMINE IN SOME BRAIN REGIONS OF CONSCIOUS CAT.
162056 04-03

CONSCIOUSNESS

CONSCIOUSNESS, POWER AND DRUG EFFECTS.
150615 04-17

CONSTITUENTS
CONSTITUENTS OF CANNABIS-SATIVA L. III: CLEAR AND DISCRETE SEPARATION OF CANNABIDIOL AND CANNABICHROMENE. 157301 04-17

CONSULTATION
ROLE OF CONSULTATION PSYCHIATRY IN TEACHING PSYCHOPHARMACOLOGY IN THE GENERAL HOSPITAL. 161595 04-17

CONSUMPTION
THE EFFECTS OF 6-HYDROXYDOPAMINE, DOPAMINE AND DL-NOREPINEPHRINE ON FOOD INTAKE AND WATER CONSUMPTION, SELF-STIMULATION, TEMPERATURE AND ELECTROENCEPHALOGRAPHIC ACTIVITY IN THE RAT. 150352 04-04
DRUG-INDUCED ATTENUATION OF ALCOHOL CONSUMPTION: A REVIEW AND EVALUATION OF CLAIMED, POTENTIAL OR CURRENT THERAPIES. 154690 04-11
INHIBITION OF STIMULATED CEREBRAL RESPIRATION IN VITRO AND OXYGEN CONSUMPTION IN VIVO IN RATS TREATED BY CHOLINOLYTIC DRUGS. 156639 04-03
EFFECTS OF L-DOPA AND RESERPINE ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION. 158495 04-04
EFFECTS OF L-DOPA AND DDC ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION. 158496 04-04

CONTINUATION
AN EVALUATION OF CONTINUATION THERAPY WITH TRICYCLIC ANTIDEPRESSANTS IN DEPRESSIVE ILLNESS. 162636 04-09

CONTINUUM
ATTENUATION OF THE MORPHINE EEG CONTINUUM FOLLOWING A REPEAT DOSE WITHIN 16 DAYS: DELAYED TOLERANCE IN THE RAT. 160633 04-03

CONTRACTION
BLOCKADE BY BUFOTENIDINE OF THE SEROTONIN AND NARCOTIC ANALGESICS INDUCED CONTRACTION OF DOG INTESTINE IN VIVO. 156825 04-03
THE TREATMENT OF MUSCLE CONTRACTION HEADACHES WITH DIAZEPAM. 163681 04-11

CONTRACTIONS
POTENTIATING MECHANISM BY OUABAIN ON CONTRACTIONS OF GUINEA-PIG VAS-DEFERENS TO 5-HT AND OTHER AMINES. 158475 04-03

CONTRIBUTING
CONTRIBUTING PHARMACOLOGIC FACTORS IN MORPHINE INDUCED FETAL MALFORMATIONS (PH.D. DISSERTATION). 159483 04-03

CONTROL
DOSAGE CONTROL OF DRUGS WITH LETHAL POTENCY FOR UNIVERSITY LEVEL PATIENTS. 150579 04-15
COMPARISON BETWEEN O-AMINOPHENOL GLUCURONIDATION IN LIVER SLICES AND HOMOGENATES FROM CONTROL AND PHENOBARBITAL TREATED WISTAR AND GUNN RATS. 151351 04-03
CONTROL OF MORPHINE WITHDRAWAL HYPOTHERMIA BY CONDITIONAL STIMULI. 153098 04-03
COMPARISON OF AMANTADINE, ORPHENADRINE, AND PLACEBO IN THE CONTROL OF PHENOTHIAZINE INDUCED PARKINSONISM. 153122 04-15
MEASUREMENT AND CONTROL OF PREOPERATIVE ANXIETY. 153197 04-14
ROLE OF BETA-ADRENERGIC RECEPTOR IN THE CONTROL OF SEROTONIN N-ACETYLTRANSFERASE IN RAT PINEAL. (UNPUBLISHED PAPER). 154368 04-03
SOME ISSUES OF CONTROL IN ALCOHOL RESEARCH ON ANIMAL BEHAVIOR. 159068 04-05
CENTRAL NEUROGENIC CONTROL OF CEREBRAL CIRCULATION. 162136 04-03
TRANSFER OF STATE-DEPENDENT CONTROL OF DISCRIMINATIVE BEHAVIOUR BETWEEN SUBCUTANEOUSLY AND INTRAVENTRICULARLY ADMINISTERED NICOTINE AND SALINE. 163771 04-04

CONTROLLED
A CONTROLLED DOUBLE-BLIND COMPARISON BETWEEN LOXAPINE SUCCINATE AND CHLORPROMAZINE IN ACUTE NEWLY HOSPITALIZED SCHIZOPHRENIC PATIENTS. 150835 04-08
CONTROLLED EVALUATION OF INTRAVENOUS DRUGS IN THE SPECIFIC DESENSITIZATION OF PHOBIAS. 153609 04-10
THE TREATMENT OF SEVERE ANXIETY IN OUTPATIENTS: A CONTROLLED STUDY COMPARING CHLORDIAZEPOXIDE AND CHLORPROMAZINE. 155794 04-10
EFFECTS OF D-AMPHETAMINE ON SCHEDULE CONTROLLED KEY PRESSING AND DRINKING IN THE CHIMPANZEE. 157119 04-04
EFFECTS OF METHAMPHETAMINE AND CHLORDIAZEPOXIDE ON SCHEDULE CONTROLLED AND ADJUNCTIVE LICKING IN THE RAT. 157156 04-04
CONTROLLED EVALUATION OF FLURAZEPAM HYDROCHLORIDE, A NEW NONBARBITURATE HYPNOTIC. 159473 04-07
A CONTROLLED EVALUATION OF PYROVALERONE IN CHRONICALLY FATIGUED VOLUNTEERS. 160217 04-14
A CONTROLLED STUDY OF THE CLINICAL EFFECTS OF AMANTADINE HYDROCHLORIDE (SYMMETREL). 160644 04-11
PHENELZINE IN PHOBIC ANXIETY: A CONTROLLED TRIAL. 162647 04-09
PIPERACETAZINE INJECTABLE: A CONTROLLED STUDY. 165803 04-08
A CONTROLLED COMPARISON OF METIAPINE AND CHLORPROMAZINE IN CHRONIC SCHIZOPHRENIA. 166718 04-08
LU-5-003 IN ANTIDEPRESSIVE THERAPY. A CONTROLLED CLINICAL TEST WITH SIMULTANEOUS MEASUREMENT OF PHARMACOKINETIC PARAMETERS. PRELIMINARY REPORT. 166982 04-13

CONTROVERSY
THE NIACIN CONTROVERSY: THE POSSIBILITY OF NEGATIVE EFFECTS. 163999 04-08

CONVULSANT
THE EFFECT OF THE CONVULSANT 3-MERCAPTOPROPIONIC ACID ON ENZYMES OF THE GAMMA-AMINOBUTYRATE SYSTEM IN THE RAT CEREBRAL CORTEX. 161378 04-03
CONVULSIONS ELICITED BY HANDLING: A SENSITIVE METHOD OF MEASURING CNS EXCITATION IN MICE TREATED WITH RESERPINE OR CONVULSANT DRUGS. 163748 04-03

CONVULSIONS
BENZODIAZEPINES: A STUDY OF THE RELATIONSHIP BETWEEN THEIR EFFECT ON CATECHOLAMINE TURNOVER RATE AND PENTYLENETETRAZOLE CONVULSIONS. (UNPUBLISHED PAPER). 152543 04-03
SPONTANEOUS RELEASE AND DURING METRAZOL CONVULSIONS OF 5-HYDROXYTRYPTAMINE IN SOME BRAIN REGIONS OF CONSCIOUS CAT. 162056 04-03
CONVULSIONS ELICITED BY HANDLING: A SENSITIVE METHOD OF MEASURING CNS EXCITATION IN MICE TREATED WITH RESERPINE OR CONVULSANT DRUGS. 163748 04-03
PENTYLENETETRAZOL CONVULSIONS AND BRAIN CATECHOLAMINE TURNOVER RATE IN RATS AND MICE RECEIVING DIPHENYLHYDANTOIN AND BENZODIAZEPINES. 164834 04-03

CONVULSIVE
THE ACTION OF ANTIDEPRESSANTS AND CONVULSIVE TREATMENT UPON THE HIGHER NERVOUS ACTIVITY IN DEPRESSIVE STATES. 152152 04-09
A PERMANENT CHANGE IN CONVULSIVE THRESHOLD IN NORMAL AND BRAIN-DAMAGED RATS WITH REPEATED SMALL DOSES OF PENTYLENETETRAZOL. 152437 04-03
LITHIUM CARBONATE AND CONVULSIVE DISORDERS. 156156 04-15

COORDINATION
SENSORIMOTOR COORDINATION IN PARKINSONS DISEASE BEFORE AND AFTER LEVODOPA THERAPY. 163805 04-13

COPPER
EVIDENCE FOR NONINVOLVEMENT OF CENTRAL CATECHOLAMINES IN COPPER ACETATE INDUCED OVULATION. 163797 04-03

CORD
EFFECT OF PARA-METHOXYPHENYLETHYLAMINE ON POLYSYNAPTIC PATHWAYS AND ON INTERNEURONS OF THE CAT LUMBAR SPINAL CORD. 157112 04-03
AN ASSAY PROCEDURE FOR TRYPTAMINE IN BRAIN AND SPINAL CORD USING ITS 3H DANSYL DERIVATIVE. 161380 04-06
THE EFFECT OF SOME SUBSTANCES OF THE PHENOTHIAZINE SERIES AND OF ALPHA-ADRENERGIC BLOCKING AGENTS ON SPINAL CORD ACTIVITY UNDER CONDITIONS OF DISRUPTION OF INHIBITORY MECHANISMS BY TETANUS TOXIN. 162921 04-03

CORPUS-CALLOSUM
LIPOMA OF THE CORPUS-CALLOSUM.
155437 04-17

CORPUS-STRIATUM
EFFECT OF CLOZAPINE ON THE TURNOVER OF DOPAMINE IN THE CORPUS-STRIATUM AND IN THE LIMBIC SYSTEM.
156765 04-03
UPTAKE OF (3H)- CATECHOLAMINES BY HOMOGENATES OF RAT CORPUS-STRIATUM AND CEREBRAL CORTEX: EFFECTS OF AMPHETAMINE ANALOGUES.
160637 04-03
AMPHETAMINE-INDUCED INHIBITION OF TYROSINE HYDROXYLATION IN HOMOGENATES OF RAT CORPUS-STRIATUM.
166000 04-03

CORRELATES
GILLES-DE-LA-TOURETTES DISEASE AND MINIMAL BRAIN DYSFUNCTION: AMPHETAMINE ISOMERS REVEAL CATECHOLAMINE CORRELATES IN AN AFFECTED PATIENT.
153097 04-11
SOME CORRELATES OF MARIHUANA SELF-ADMINISTRATION IN MAN: A STUDY OF TITRATION OF INTAKE AS A FUNCTION OF DRUG POTENCY.
153100 04-13
AUTONOMIC CORRELATES OF THE SEDATION THRESHOLD.
155526 04-13

CORRELATION
CORRELATION BETWEEN BRAIN DOPAMINE LEVELS AND L-DOPA ACTIVITY IN ANTIPARKINSON TESTS.
156823 04-06

CORRELATIONS
ON CLINICOIMMUNOLOGIC CORRELATIONS IN THE EVALUATION OF REMISSIONS IN PATIENTS WITH DELAYED EPILEPTIC PSYCHOSES.
151805 04-11
STUDIES ON POSSIBLE CORRELATIONS BETWEEN CHOLINESTERASE LEVELS IN MOUSE BRAIN AND BEHAVIOR. (PH.D. DISSERTATION).
159827 04-03

CORTEX
DEVELOPMENT AND CHARACTERISTICS OF THE HISTAMINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RABBIT CEREBRAL CORTEX. (UNPUBLISHED PAPER).
154372 04-03
EFFECT OF DESMETHYLIMIPRAMINE ON ACETYLCHOLINE UPTAKE BY SLICES OF RAT BRAIN CORTEX.
155494 04-03
UPTAKE OF (3H)- CATECHOLAMINES BY HOMOGENATES OF RAT CORPUS-STRIATUM AND CEREBRAL CORTEX: EFFECTS OF AMPHETAMINE ANALOGUES.
160637 04-03
THE EFFECT OF THE CONVULSANT 3-MERCAPTOPROPIONIC ACID ON ENZYMES OF THE GAMMA-AMINOBUTYRATE SYSTEM IN THE RAT CEREBRAL CORTEX.
161378 04-03
INTERACTIONS BETWEEN AMPHETAMINE AND SEROTONERGIC AGENTS ON CATS ISOLATED CEREBRAL CORTEX.
163780 04-03
EFFECT OF DIPHENYLHYDANTOIN ON THE UPTAKE AND CATABOLISM OF L-(3H)NOREPINEPHRINE IN VITRO IN RAT CEREBRAL CORTEX TISSUE.
166696 04-03

CORTICAL
IS THE UPTAKE OF NARCOTIC ANALGESICS BY CEREBRAL CORTICAL SLICES MEDIATED IN PART BY ACTIVE TRANSPORT?
151631 04-03
ALTERATION OF CORTICAL AND RETICULAR ACETYLCHOLINE RELEASE BY ETHANOL IN VIVO.
158054 04-03
CORTICAL CUPS FOR COLLECTING FREE ACETYLCHOLINE IN AWAKE RATS. (UNPUBLISHED PAPER)
158057 04-06
EFFECTS OF ETHANOL ON CEREBRAL CORTICAL NEURONS: INTERACTIONS WITH SOME PUTATIVE TRANSMITTERS.
158773 04-03

CORTISOL
GROWTH OF SUCKLING RATS AFTER TREATMENT WITH DEXAMETHASONE OR CORTISOL: IMPLICATIONS FOR STEROID THERAPY IN HUMAN INFANTS.
159355 04-03

CORYPHANTHA-MACROMERIS
CACTUS ALKALOIDS XV: BETA-PHENETHYLAMINE DERIVATIVES FROM CORYPHANTHA-MACROMERIS VAR. RUNYONII.
150411 04-01

CORYPHANTHA-RAMILLOSA
CACTUS ALKALOIDS XVI: ISOLATION AND IDENTIFICATION OF ALKALOIDS IN CORYPHANTHA-RAMILLOSA.
150412 04-01

COSTA-RICA
NEW DRUG DEVELOPMENTS IN THE LATIN-AMERICAS (ARGENTINA, COSTA-RICA, MEXICO, AND PANAMA).
155273 04-17

COSTS
IMPROVING SCHEDULING AND REDUCING COSTS OF PSYCHOTROPIC DRUGS FOR OUTPATIENTS.
157291 04-17

COUNTRIES
NEW DRUG DEVELOPMENTS IN GERMAN-SPEAKING COUNTRIES.
155271 04-17
NEW DRUG DEVELOPMENTS IN FRANCE AND FRENCH-SPEAKING COUNTRIES.
155272 04-17

COUNTS
BLOOD HISTAMINE, BASOPHIL COUNTS, AND TRACE ELEMENTS IN THE SCHIZOPHRENIAS.
150964 04-08

CREATIVE
CREATIVE PERFORMANCE AND THE HALLUCINOGENIC DRUG-INDUCED CREATIVE EXPERIENCE.
162156 04-12

CRISIS
POSITIVE OUTCOME IN PSYCHIATRIC CRISIS: EVALUATION OF THIORIDAZINE CONCENTRATE IN AN INTENSIVE, SHORT-TERM PSYCHIATRIC PROGRAM.
155793 04-10

CROSS-CULTURAL
CROSS-CULTURAL OPPORTUNITIES AND PROBLEMS IN STUDIES OF CHRONIC HASHISH USERS IN GREECE.
155264 04-15

CROSS-FOSTERING
EFFECTS ON OFFSPRING BEHAVIOR OF PARENTAL EARLY DRUG EXPERIENCE AND CROSS-FOSTERING.
157043 04-04

CROSS-NATIONAL
PROBLEMS AND PROFITS OF CROSS-NATIONAL COLLABORATIVE STUDIES.
155265 04-17
BIOLOGICAL ASPECTS OF CROSS-NATIONAL DRUG STUDIES.
155266 04-17

CROSSOVER
HALOPERIDOL VERSUS DIAZEPAM: A DOUBLE-BLIND CROSSOVER CLINICAL TRIAL.
150790 04-10
HALOPERIDOL AND CHLORPROMAZINE: A DOUBLE-BLIND CROSSOVER TRIAL AND CLINICAL STUDY IN CHILDREN AND ADOLESCENTS.
161661 04-11

CS-386
EFFECTS OF CS-386 AND CLOXAZOLAM ON CONDITIONED BEHAVIOR OF PAIRED MONKEYS.
158491 04-04

CULTURE
INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE.
150583 04-03
STIMULATION OF SEROTONIN N-ACETYLTRANSFERASE IN PINEAL ORGAN CULTURE BY DRUGS. (UNPUBLISHED PAPER).
154364 04-03

CULUTURAL
SIGNIFICANCE AND COMPLICATIONS OF THE CULUTURAL VARIABLES IN PSYCHOPHARMACOLOGICAL RESEARCH.
155267 04-17

CUPS
CORTICAL CUPS FOR COLLECTING FREE ACETYLCHOLINE IN AWAKE RATS. (UNPUBLISHED PAPER)
158057 04-06

CURRENTS
THE REFLECTION OF EJECTING AND RETAINING CURRENTS IN THE TIME COURSE OF NEURONAL RESPONSES TO MICROELECTROPHORETICALLY APPLIED DRUGS.
158768 04-03

CYCLASE
DOPAMINE SENSITIVE ADENYLATE CYCLASE: THE DOPAMINE RECEPTOR IN THE MAMMALIAN NERVOUS SYSTEM. (PH.D. DISSERTATION).
159484 04-01
ADENYL CYCLASE ACTIVITY IN KIDNEYS OF RATS WITH LITHIUM INDUCED POLYURIA.
163320 04-03

CYCLAZOCINE
STUDIES ON THE EFFECT OF CYCLAZOCINE, A BENZOMORPHAN DERIVATIVE, ON THE SYMPATHETIC NERVOUS SYSTEM. (PH.D. DISSERTATION).
163534 04-03

CYCLE
EFFECTS OF TRAZODONE ON SLEEP WAKEFULNESS CYCLE IN RATS.
158508 04-04
THE EFFECT OF PHENOBARBITONE ANESTHESIA UPON SOME ORGANIC PHOSPHATES, GLYCOLYTIC METABOLITES AND CITRIC ACID CYCLE ASSOCIATED INTERMEDIATES OF THE RAT BRAIN.
160226 04-03

DELTA9-TETRAHYDROCANNABINOL AND THE SLEEP WAKEFULNESS CYCLE IN RABBITS.
161119 04-04
FLUNITRAZEPAM (RO-5-4200) AND SLEEP CYCLE IN NORMAL SUBJECTS.
163773 04-14

CYCLIC
EFFECTS OF MORPHINE ON CATECHOLAMINE TURNOVER, CYCLIC 3,5 AMP CONCENTRATIONS AND TYROSINE HYDROXYLASE ACTIVITY IN RAT TISSUES. (UNPUBLISHED PAPER).
152549 04-03
MODIFICATION OF THE CNS CYCLIC AMP RESPONSE BY DRUGS.
152664 04-03
DEVELOPMENT AND CHARACTERISTICS OF THE HISTAMINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RABBIT CEREBRAL CORTEX. (UNPUBLISHED PAPER).
154372 04-03
THE EFFECT OF TRIVASTAL, HALOPERIDOL AND DIBUTYRYL CYCLIC AMP ON (14C)DOPAMINE SYNTHESIS IN RAT STRIATUM.
156766 04-03
EFFECT OF XANTHINOL NICOTINATE ON METABOLISM OF BRAIN CYCLIC AMP AND METABOLISM IN ELECTRICALLY STIMULATED CEREBRAL TISSUE.
158511 04-03
INHIBITORY EFFECT OF METHYLXANTHINES ON THE ADENOSINE STIMULATED FORMATION OF CYCLIC AMP IN BRAIN SLICES.
158512 04-03
URINARY CYCLIC AMP IN PERIODIC CATATONIA.
160826 04-13
COMPARISON OF EFFECTS OF NORADRENALINE AND HISTAMINE WITH CYCLIC AMP ON BRAIN STEM NEURONES.
162893 04-03
EFFECT OF N6O2-DIBUTYRYL CYCLIC 3,5 ADENOSINE MONOPHOSPHATE ON THE PINOCYTOSIS OF BRAIN CAPILLARIES OF MICE.
162960 04-03
THE BEHAVIORAL EFFECTS OF DIBUTYRYL CYCLIC AMP IN MICE.
163696 04-04
EFFECTS OF NEUROHUMORAL AND ADRENERGIC AGENTS ON CYCLIC AMP LEVELS IN VARIOUS AREAS OF THE RAT BRAIN IN VITRO. (UNPUBLISHED PAPER).
165682 04-03
INFLUENCE OF AMPHETAMINES, PROTRIPTYLINE AND PARGYLINE ON THE TIME COURSE OF THE NOREPINEPHRINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RAT BRAIN.
165790 04-03

CYCLOBENZAPRINE
CYCLOBENZAPRINE IN THE TREATMENT OF CHRONIC TENSION HEADACHE.
151201 04-11

CYCLOHEXIMIDE
CYCLOHEXIMIDE AFFECTS MEMORY WITHIN MINUTES AFTER THE ONSET OF TRAINING.
150151 04-04
MEMORY TRACES: EXPERIMENTAL SEPARATION BY CYCLOHEXIMIDE AND ELECTROCONVULSIVE SHOCK.
150312 04-04
INHIBITION OF BRAIN GLUTAMATE DEHYDROGENASE BY A METABOLITE OF CYCLOHEXIMIDE AND ITS RELEVANCE FOR THE MECHANISM OF AMMONIA FORMATION IN BRAIN SLICES. (UNPUBLISHED PAPER).
151650 04-03
MEMORY STORAGE IN THREE INBRED MOUSE STRAINS AFTER INJECTION OF CYCLOHEXIMIDE.
153042 04-04

CYPROHEPTADINE
INTERACTION OF OXOTREMORINE WITH ATROPINE, CHLORPROMAZINE, CYPROHEPTADINE, IMIPRAMINE AND PHENOXYBENZAMINE ON THE FLEXOR REFLEX OF THE CHRONIC SPINAL DOG.
150318 04-03

CYPROHEPTADINE-N-METHYL-14C
BINDING OF CYPROHEPTADINE-N-METHYL-14C BY HUMAN BLOOD PLATELETS: INHIBITION BY PHENOTHIAZINES AND TRICYCLIC ANTIDEPRESSANTS.
156647 04-13

CYTOCHEMISTRY
CYTOCHEMISTRY OF SYNAPTIC PHARMACOLOGY. (UNPUBLISHED PAPER).
151429 04-03

CYTOTOXIC
HALOPERIDOL IN THE TREATMENT OF NAUSEA AND VOMITING DUE TO CYTOTOXIC DRUG ADMINISTRATION.
164218 04-15

D-AMPHETAMINE
BLOCKADE OF D-AMPHETAMINE INDUCED STEREOTYPED BEHAVIOR BY BULBOCAPNINE.
150405 04-04
USE OF D-AMPHETAMINE AND RELATED CENTRAL NERVOUS SYSTEM STIMULANTS IN CHILDREN.
152066 04-11
BLOCKADE OF THE CENTRAL EFFECTS OF D-AMPHETAMINE SULFATE BY AMANTADINE HYDROCHLORIDE.
156819 04-03
THE USE OF D-AMPHETAMINE PELLET IMPLANTATION AS A MODEL FOR D-AMPHETAMINE TOLERANCE IN THE MOUSE.
157038 04-03
EFFECTS OF D-AMPHETAMINE ON SCHEDULE CONTROLLED KEY PRESSING AND DRINKING IN THE CHIMPANZEE.
157119 04-04
THE EFFECTS OF CHLORPROMAZINE AND D-AMPHETAMINE UPON SHOCK ELICITED AGGRESSION.
157148 04-04
COMPARABLE BEHAVIOR MAINTAINED UNDER FIXED-RATIO AND SECOND-ORDER SCHEDULES OF FOOD PRESENTATION, COCAINE INJECTION OR D-AMPHETAMINE INJECTION IN THE SQUIRREL MONKEY.
159367 04-04
SEX DIFFERENCES IN FIGHTING AND DEFENSE INDUCED IN RATS BY SHOCK AND D-AMPHETAMINE DURING MORPHINE ABSTINENCE.
161125 04-04
DRUGS AND PUNISHED RESPONDING II: D-AMPHETAMINE INDUCED INCREASES IN PUNISHED RESPONDING.
162325 04-04
COMPARISON OF BEHAVIORAL EFFECTS OF NICOTINE, D-AMPHETAMINE, CAFFEINE AND DIMETHYLHEPTYL TETRAHYDROCANNABINOL IN SQUIRREL MONKEYS.
163750 04-04
A COMPARISON OF THE EFFECTS OF D-AMPHETAMINE AND MORPHINE UPON THE LOCOMOTOR ACTIVITY OF MICE TREATED WITH DRUGS WHICH ALTER BRAIN CATECHOLAMINE CONTENT.
163769 04-04
EFFECTS OF D-AMPHETAMINE ON THE INCORPORATION OF CARBON ATOMS OF D-MANNOSE INTO THE BRAINS AND SERA OF DIFFERENTIALLY HOUSED MICE: SHORT-TERM REVERSIBILITY OF THESE EFFECTS.
163779 04-03
EFFECT OF D-AMPHETAMINE ON THE TURNOVER, SYNTHESIS AND METABOLISM OF BRAIN PHOSPHATIDYLCHOLINE.
166697 04-03

D-LSD
A BEHAVIORAL AND PHARMACOLOGICAL ANALYSIS OF SOME DISCRIMINABLE PROPERTIES OF D-LSD IN RATS.
166728 04-04

D-LYSERGIC
D-LYSERGIC ACID DIETHYLAMIDE (LSD) -- EFFECT ON BIOGENIC AMINES EXCRETION IN MAN.
160802 04-13

D-MANNOSE
EFFECTS OF D-AMPHETAMINE ON THE INCORPORATION OF CARBON ATOMS OF D-MANNOSE INTO THE BRAINS AND SERA OF DIFFERENTIALLY HOUSED MICE: SHORT-TERM REVERSIBILITY OF THESE EFFECTS.
163779 04-03

D-METHAMPHETAMINE
EFFECTS OF L-DOPA AND L-3-METHOXYTYROSINE ON D-METHAMPHETAMINE INDUCED MOTOR ACTIVITY AND SEIZURES INDUCED BY ELECTROSHOCK (37475).
162046 04-03

D-PROPRANOLOL
THE EFFECT OF DL-PROPRANOLOL, D-PROPRANOLOL AND PRACTOLOL ON THE HYPERACTIVITY INDUCED IN RATS BY PROLONGED ISOLATION.
157040 04-04

D-4OTA
PHYSICOCHEMICAL STUDIES ON A NEW POTENT CNS DEPRESSANT, 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-4OTA).
155553 04-01
HYPNOTIC EFFECT OF 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-4OTA) IN EXPERIMENTALLY INDUCED INSOMNIA AND BRAIN SEROTONIN IN RATS.
158504 04-04
EFFECTS OF NEW S-TRIAZOLOBENZODIAZEPINE (D-4OTA) AND OTHER CENTRAL MUSCLE RELAXANTS ON SPINAL AND SUPRASPINAL REFLEXES IN CATS.
163798 04-03

DAMAGE
DAMAGE TO THE CENTRAL NERVOUS SYSTEM IN THE COURSE OF NEUROLEPTIC TREATMENT.
167087 04-15

DARK
EFFECT OF 6-HYDROXYDOPAMINE ON DARK ADAPTATION IN THE RAT RETINA.
159569 04-03

DARVON
ACCIDENTAL INGESTION: METHADONE, PROPOXYPHENE (DARVON), OR DIPHENOXYLATE (LOMOTIL) POISONING.
161788 04-15

DATA
COMPARATIVE DATA FROM A STUDY OF THE METABOLISM OF BIOGENIC AMINES OF EPILEPTIC PATIENTS IN A PSYCHOTIC STATE.
151803 04-13
SOME DATA ON TEGRETOL THERAPY FOR PATIENTS WITH EPILEPSY.
151807 04-11

DAY
THE EXCRETION OF L-DOPA METABOLITES AT DIFFERENT HOURS OF THE DAY.
150836 04-13
PRESENT DAY POSSIBILITIES OF RELIEVING POSTNEUROLEPTIC EXTRAPYRAMIDAL SYMPTOMS.
156562 04-11

DAYS
ATTENUATION OF THE MORPHINE EEG CONTINUUM FOLLOWING A REPEAT DOSE WITHIN 16 DAYS: DELAYED TOLERANCE IN THE RAT.
160633 04-03

DDC
EFFECTS OF L-DOPA AND DDC ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158496 04-04

DDT
USE OF ORAL DDT IN THREE HUMAN BARBITURATE INTOXICATIONS: HEPATIC ENZYME INDUCTION BY RECIPROCAL DETOXICANTS.
155205 04-15

DEAFFERENTATION
APPLICATION OF PRINCIPLES OF STEADY-STATE KINETICS TO MEASURE ACETYLCHOLINE TURNOVER RATE IN RAT SALIVARY GLANDS: EFFECT OF DEAFFERENTATION AND DUCT LIGATION.
163763 04-03

DECANOATE
FLUPHENAZINE DECANOATE TRIAL IN CHRONIC INPATIENT SCHIZOPHRENICS FAILING TO ABSORB ORAL CHLORPROMAZINE.
156741 04-08
FLUPHENAZINE ENANTHATE AND FLUPHENAZINE DECANOATE: A COMPARISON OF THEIR DURATION OF ACTION AND MOTOR SIDE-EFFECTS.
161905 04-09

DECARBOXYLASE
MODIFICATION OF LEVODOPA EFFECT BY SYSTEMIC DECARBOXYLASE INHIBITION.
150216 04-13
BRAIN CATECHOLAMINES AND THEIR METABOLITES IN PARKINSONIAN PATIENTS: TREATMENT WITH LEVODOPA ALONE OR COMBINED WITH A DECARBOXYLASE INHIBITOR.
150218 04-13
SIMULTANEOUS MEASUREMENT OF TYROSINE AND TRYPTOPHAN HYDROXYLASE ACTIVITIES IN BRAIN IN VIVO USING AN INHIBITOR OF THE AROMATIC AMINO ACID DECARBOXYLASE.
150402 04-03
COMPARISON OF L-DOPA WITH ITS ASSOCIATION WITH AN L-DOPA DECARBOXYLASE INHIBITOR IN THE MANAGEMENT OF PARKINSONS DISEASE.
150631 04-15
TREATMENT OF PARKINSONISM WITH L-DOPA AND DECARBOXYLASE INHIBITOR: AN ELECTROPHYSIOLOGICAL STUDY.
151688 04-11
TREATMENT OF PARKINSONISM WITH A COMBINATION OF LEVODOPA AND THE DECARBOXYLASE INHIBITOR RO-4-4602 (A COMPARISON WITH LEVODOPA TREATMENT ALONE).
151689 04-07
TREATMENT OF PARKINSONISM WITH A COMPOUND OF L-DOPA (LARODOPA) AND A DECARBOXYLASE INHIBITOR (RO-4-4602).
151691 04-11
BLOOD-BRAIN BARRIER TO CARBIDOPA (MK-486) AND RO-4-4602, PERIPHERAL DOPA DECARBOXYLASE INHIBITORS.
155906 04-03
ACID MONOAMINE METABOLITES IN THE CEREBROSPINAL FLUID OF PARKINSONIAN PATIENTS TREATED WITH LEVODOPA ALONE OR COMBINED WITH DECARBOXYLASE INHIBITOR.
160650 04-13

DECLINING-DOSE
DECLINING-DOSE DRUG DESENSITIZATION FOR PHOBIAS: CLINICAL AND PSYCHOPHYSIOLOGICAL STUDIES.
153607 04-10

DECREMENT
AVOIDANCE DECREMENT PHENOMENA AND MEASUREMENTS OF DRUG EFFECTS.
152191 04-04

DEFAULTING
DRUG DEFAULTING BY PATIENTS ON LONG-ACTING PHENOTHIAZINES.
162646 04-08

DEFECTS
SPEECH DEFECTS OF PARKINSONIAN PATIENTS: EFFECTS OF LEVODOPA THERAPY ON SPEECH INTELLIGIBILITY.
156075 04-14
WEIGHING EVIDENCE THAT LINKS EPILEPSY DRUGS TO FETAL DEFECTS.
161357 04-15

DEFENSE
SEX DIFFERENCES IN FIGHTING AND DEFENSE INDUCED IN RATS BY SHOCK AND D-AMPHETAMINE DURING MORPHINE ABSTINENCE.
161125 04-04

DEFORMITIES
TRICYCLIC ANTIDEPRESSANTS AND LIMB REDUCTION DEFORMITIES: A FURTHER COMMUNICATION FROM THE AUSTRALIAN DRUG EVALUATION COMMITTEE.
151932 04-15

DEGENERATION
PHARMACOLOGICAL MODIFICATIONS OF THE 6-HYDROXYDOPA INDUCED DEGENERATION OF CENTRAL NORADRENALINE NEURONS.
151350 04-03
EVIDENCE FOR DEGENERATION OF SYMPATHETIC NERVE TERMINALS CAUSED BY THE ORTHO-QUINONES AND PARA-QUINONES OF 6-HYDROXYDOPAMINE.
157178 04-03
EFFECTS OF INTRACEREBRAL INJECTIONS OF 5,6 DIHYDROXYTRYPTAMINE ON CENTRAL MONOAMINE NEURONS: EVIDENT FOR SELECTIVE DEGENERATION OF CENTRAL 5-HYDROXYTRYPTAMINE NEURONS.
162894 04-03

DEGENERATIVE
6-AMINODOPAMINE AND 6-HYDROXYDOPAMINE: SIMILAR DEGENERATIVE EFFECTS ON PERIPHERAL ADRENERGIC NERVES. (UNPUBLISHED PAPER).
156107 04-03

DEHYDROGENASE
INHIBITION OF BRAIN GLUTAMATE DEHYDROGENASE BY A METABOLITE OF CYCLOHEXIMIDE AND ITS RELEVANCE FOR THE MECHANISM OF AMMONIA FORMATION IN BRAIN SLICES. (UNPUBLISHED PAPER).
151650 04-03

DELAYED
ON CLINICOIMMUNOLOGIC CORRELATIONS IN THE EVALUATION OF REMISSIONS IN PATIENTS WITH DELAYED EPILEPTIC PSYCHOSES.
151805 04-11
STUDY OF THE DELAYED FORM OF A SYNTHETIC ANTIPARKINSONIAN AGENT: AKINETON.
157233 04-09
ATTENUATION OF THE MORPHINE EEG CONTINUUM FOLLOWING A REPEAT DOSE WITHIN 16 DAYS: DELAYED TOLERANCE IN THE RAT.
160633 04-03

DELIRIUM
CARBAMAZEPINE (TEGRETOL) IN THE TREATMENT OF DELIRIUM TREMENS.
151395 04-11

DELIVERY
LITHIUM AND PREGNANCY - II, HAZARDS TO WOMEN GIVEN LITHIUM DURING PREGNANCY AND DELIVERY.
155042 04-15

DELTA1-TETRAHYDROCANNABINOL
PLASMA PROTEIN BINDING OF 7-HYDROXY-DELTA1-TETRAHYDROCANNABINOL: AN ACTIVE DELTA1-TETRAHYDROCANNABINOL METABOLITE.
156799 04-03
QUANTITATION OF DELTA1-TETRAHYDROCANNABINOL IN PLASMA FROM CANNABIS SMOKERS.
158770 04-16
INTERACTION OF CHLORAMPHENICOL AND DELTA1-TETRAHYDROCANNABINOL IN BARBITAL ANESTHETIZED MICE.
162055 04-02

DELTA8-THC
ACUTE EFFECTS OF TWO TETRAHYDROCANNABINOLS (DELTA9-THC AND DELTA8-THC) ON WATER INTAKE IN WATER DEPRIVED RATS: IMPLICATIONS FOR BEHAVIORAL STUDIES ON MARIHUANA COMPOUNDS.
157149 04-04
EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING.
158000 04-04

DELTA9-TETRAHYDROCANNABINOL
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) AND CHLORDIAZEPOXIDE (CDP) ON STATE-DEPENDENT LEARNING: EVIDENCE FOR ASYMMETRICAL DISSOCIATION.
150301 04-04
THE INTERACTION OF DELTA9-TETRAHYDROCANNABINOL PRETREATMENT WITH VARIOUS SEDATIVE HYPNOTIC DRUGS.
150302 04-04
DELTA9-TETRAHYDROCANNABINOL: EFFECTS ON MAMMALIAN NONMYELINATED NERVE FIBERS.
150383 04-03
VEHICLE AND ROUTE OF ADMINISTRATION AS PARAMETERS AFFECTING OPERANT BEHAVIORAL EFFECTS OF DELTA9-TETRAHYDROCANNABINOL.
150414 04-04
DELTA9-TETRAHYDROCANNABINOL AND ETHANOL: DIFFERENTIAL EFFECTS ON SYMPATHETIC ACTIVITY IN DIFFERING ENVIRONMENTAL SETTING.
154261 04-03
DELTA9-TETRAHYDROCANNABINOL: ELECTROENCEPHALOGRAPHIC CHANGES AND AUTONOMIC RESPONSES IN THE RABBIT.
154970 04-03

PREPARATION OF DELTA9-TETRAHYDROCANNABINOL FOR INTRAVENOUS INJECTION.
156763 04-06
AN INTRAVENOUS FORMULATIONS OF DELTA9-TETRAHYDROCANNABINOL USING A NONIONIC SURFACTANT.
156764 04-05
COMPARISON OF THE EFFECT OF DELTA9-TETRAHYDROCANNABINOL, 11-HYDROXY-DELTA9-TETRAHYDROCANNABINOL, AND ETHANOL ON THE ELECTROPHYSIOLOGICAL ACTIVITY OF THE GIANT AXON OF THE SQUID.
156816 04-03
INACTIVITY OF DELTA9-TETRAHYDROCANNABINOL IN ANTIDEPRESSANT SCREENING TESTS.
157142 04-03
DELTA9-TETRAHYDROCANNABINOL AND THE SLEEP WAKEFULNESS CYCLE IN RABBITS.
161119 04-04
DELTA9-TETRAHYDROCANNABINOL EFFECT ON AUDIOGENIC SEIZURE SUSCEPTIBILITY.
162273 04-03
A COMPARISON OF THE PHARMACOLOGICAL ACTIVITY OF DELTA9-TETRAHYDROCANNABINOL AND ITS MONOHYDROXYLATED METABOLITES IN MAN.
163022 04-13
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) ON SEVERAL RODENT LEARNING PARADIGMS.
167040 04-04

DELTA9-TETRAHYDROCANNABINOLS
REDUCTION OF AUDIOGENIC SEIZURE BY DELTA8- AND DELTA9-TETRAHYDROCANNABINOLS.
166001 04-04

DELTA9-THC
ACUTE EFFECTS OF TWO TETRAHYDROCANNABINOLS (DELTA9-THC AND DELTA8-THC) ON WATER INTAKE IN WATER DEPRIVED RATS: IMPLICATIONS FOR BEHAVIORAL STUDIES ON MARIHUANA COMPOUNDS.
157149 04-04
DIFFERENTIAL EFFECTS OF DELTA9-THC ON LOCOMOTOR BEHAVIOR IN ACTIVITY WHEEL HABITUATED AND NONHABITUATED RATS.
157182 04-04
EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING.
158000 04-04

DELTA9-TRANS-TETRAHYDROCANNABINOL
ACQUISITION AND LOSS OF TOLERANCE TO 1 DELTA9-TRANS-TETRAHYDROCANNABINOL IN RATS ON AN AVOIDANCE SCHEDULE.
157039 04-04
LABOR DIVISION OF RATS UNDER THE INFLUENCE OF PROLONGED ADMINISTRATION OF (-)DELTA9-TRANS-TETRAHYDROCANNABINOL.
157181 04-04
EFFECTS OF (-)DELTA9-TRANS-TETRAHYDROCANNABINOL AND ITS SELECTIVITY IN SEVERAL MODELS OF AGGRESSIVE BEHAVIOR.
161962 04-04

DEMENTED
LEVODOPA FOR PARKINSONISM IN ELDERLY AND DEMENTED PATIENTS.
153263 04-11

DEMENTIA
BIOCHEMICAL OBSERVATIONS DURING A TRIAL OF INOSIPLEX IN SENILE DEMENTIA.
156134 04-09
PERMANENT DEMENTIA IN IDIOPATHIC PARKINSONISM TREATED WITH LEVODOPA.
166033 04-15
GLUTATHIONE THERAPY OF EARLY SENILE DEMENTIA.
166908 04-09

DEMETHYLATION
THE DEMETHYLATION OF METHAMPHETAMINE BY INTESTINAL MICROFLORA.
155908 04-13

DEMOGRAPHIC
RELATIONSHIP OF CLINICAL AND DEMOGRAPHIC VARIABLES TO COMMUNITY ADJUSTMENT OF SCHIZOPHRENIC OUTPATIENTS ON CHEMOTHERAPY. (ED. D. DISSERTATION).
158779 04-08

DEMONSTRATION
OPIATE RECEPTOR: DEMONSTRATION IN NERVOUS TISSUE.
150381 04-03

DENMARK
FOUR NEW DRUG DEVELOPMENTS FROM DENMARK, RUSSIA, AND WEST GERMANY.
155275 04-14

DEPENDENCE
DYNAMICS OF DRUG DEPENDENCE: IMPLICATIONS OF A CONDITIONING THEORY FOR RESEARCH AND TREATMENT.
155239 04-17
INFLUENCE OF 5,6-DIHYDROXYTRYPTAMINE ON MORPHINE TOLERANCE AND PHYSICAL DEPENDENCE.
156822 04-03
CHARACTERISTICS OF PENTAZOCINE DEPENDENCE IN HOSPITALIZED PATIENTS AFTER NALOXONE ADMINISTRATION.
157037 04-15
OPIATE DEPENDENCE PRODUCED BY AD LIBITUM DRINKING OF MORPHINE IN WATER, SALINE, AND SUCROSE VEHICLES.
157147 04-04
MORPHINE DEPENDENCE IN RATS WITH MEDIAL FOREBRAIN BUNDLE LESIONS.
157152 04-03
ATTEMPT TO EVALUATE THE PHYSICAL DEPENDENCE LIABILITY OF PSYCHOTROPIC DRUGS IN MICE (2).
158513 04-03
EFFECTS OF ALPHA-METHYL-P-TYROSINE ON MORPHINE DEPENDENCE.
163776 04-03

DEPENDENCY
PENTAZOCINE DEPENDENCY.
154336 04-13

DEPENDENT
URINARY EXCRETION OF MONOAMINES AND METABOLITES IN PATIENTS DEPENDENT ON AND WITHDRAWN FROM BARBITURATES.
150293 04-13
THE ROLE OF DOPAMINE AND NOREPINEPHRINE IN THE NALOXONE INDUCED ABSTINENCE OF MORPHINE DEPENDENT MICE.
157116 04-03

DEPLETING
BIOGENIC AMINE DEPLETING EFFECTS OF BENZIMIDAZOLE 5(6) DL-ALANINE.
150315 04-03
COMPARISON OF THE BEHAVIORAL DEPRESSANT EFFECTS OF BIOGENIC AMINE DEPLETING AND NEUROLEPTIC AGENTS FOLLOWING VARIOUS 6-HYDROXYDOPAMINE TREATMENTS.
157140 04-04

DEPLETION
SOME OBSERVATIONS ON THE CIRCADIAN RHYTHM OF LOCOMOTOR ACTIVITY OF MICE AFTER DEPLETION OF CEREBRAL MONOAMINES.
158002 04-03
PREVENTION OF RESERPINE DEPLETION OF THE CATECHOLAMINE RESERVE WITH FLUORACIZINE.
162922 04-03
BRAIN BIOGENIC AMINES: DEPLETION BY CHRONIC DIELDRIN EXPOSURE.
166788 04-05

DEPLETOR
DECREASED ANTINOCICEPTIVE ACTIVITY OF MORPHINE IN RATS PRETREATED INTRAVENTRICULARLY WITH 5,6 DIHYDROXYTRYPTAMINE, A LONG-LASTING SELECTIVE DEPLETOR OF BRAIN SEROTONIN.
163775 04-03

DEPRESSANT
SYNTHESIS AND CNS DEPRESSANT ACTIVITY OF IMIDAZOLINONE GLYOXYLATES.
150415 04-02
PHYSICOCHEMICAL STUDIES ON A NEW POTENT CNS DEPRESSANT, 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA).
155553 04-01
COMPARISON OF THE BEHAVIORAL DEPRESSANT EFFECTS OF BIOGENIC AMINE DEPLETING AND NEUROLEPTIC AGENTS FOLLOWING VARIOUS 6-HYDROXYDOPAMINE TREATMENTS.
157140 04-04
TRIAZOLOBENZODIAZEPINES, A NEW CLASS OF CENTRAL NERVOUS SYSTEM DEPRESSANT COMPOUNDS.
158279 04-03

DEPRESSANTS
THE EFFECTS OF STIMULANTS AND DEPRESSANTS ON COCAINE SELF-ADMINISTRATION BEHAVIOR IN THE RHESUS MONKEY.
157998 04-04

DEPRESSED
T3 ALONE IN DEPRESSED ADULTS.
155257 04-09
SKIN POTENTIAL ORIENTING RESPONSES IN DRUG TREATED AND NONDRUG TREATED DEPRESSED INPATIENTS.
159395 04-09
THE EFFECT OF LITHIUM CARBONATE ON THE SLEEP OF DEPRESSED PATIENTS.
161391 04-14
BARBITURATE TOLERANCE AND PSYCHOLOGICAL FUNCTIONING IN ELDERLY DEPRESSED PATIENTS.
162639 04-09
AN UNCONTROLLED CLINICAL TRIAL WITH CLOMIPRAMINE IN THE TREATMENT OF DEPRESSED PATIENTS.
163683 04-09
CHLORIMIPRAMINE: A DOUBLE-BLIND COMPARISON OF INTRAVENOUS VERSUS ORAL ADMINISTRATION IN DEPRESSED PATIENTS.
166729 04-09
CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE:

STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER).
166960 04-09

DEPRESSION

CLINICAL EXPERIENCE WITH A COMBINATION OF CHLORIMIPRAMINE AND THYROID EXTRACT IN THE TREATMENT OF PATIENTS SUFFERING FROM DEPRESSION.
149746 04-10

TOLERANCE IN THE DEPRESSION OF INTAKE WHEN AMPHETAMINE IS ADDED TO THE RATS FOOD.
150353 04-03

LITHIUM CARBONATE THERAPY IN ENDOGENOUS DEPRESSION.
150746 04-09

THE EFFECTS OF SPREADING DEPRESSION ON PENICILLIN INDUCED EPILEPTIFORM ACTIVITY IN RAT BRAIN.
152438 04-05

ACUTE PAROTITIS ASSOCIATED WITH DEPRESSION AND PSYCHOACTIVE DRUG THERAPY.
155089 04-14

OBESITY DEPRESSION: CLINICAL EVALUATION WITH A NEW ANOREXIGENIC AGENT.
155886 04-10

COMPARATIVE STUDY OF THE EFFICACY OF DIBENZEPINE, DOXEPINE AND CHLORIMIPRAMINE IN DEPRESSION.
156565 04-09

DRUG-INDUCED CHANGES OF STRIATAL CHOLINERGIC AND DOPAMINERGIC FUNCTIONS IN RATS WITH SPREADING DEPRESSION.
156797 04-03

ALTERATION OF ETHANOL INDUCED CNS DEPRESSION: INEFFECTIVENESS OF DRUGS THAT MODIFY CHOLINERGIC TRANSMISSION. (UNPUBLISHED PAPER).
158058 04-04

DRUG RESPONSES IN DIFFERENT ANXIETY STATES UNDER BENZODIAZEPINE TREATMENT. SOME MULTIVARIATE ANALYSES FOR THE EVALUATION OF RATING SCALE FOR DEPRESSION SCORES.
158285 04-14

MONOAMINE PRECURSORS AND INDOLEAMINE METABOLISM IN DEPRESSION.
158500 04-09

PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09

STRYCHNINE, MORPHINE AND MONOAMINE DEPRESSION.
160768 04-03

TRYPTOPHAN AND AMITRIPTYLINE IN THE TREATMENT OF DEPRESSION: A DOUBLE-BLIND STUDY.
161386 04-09

INTRACELLULAR LITHIUM CONCENTRATION AND CLINICAL RESPONSE: TOWARDS A MEMBRANE THEORY OF DEPRESSION.
161732 04-13

DRUG TREATMENT OF ANXIETY AND DEPRESSION IN DETOXIFIED ALCOHOLIC PATIENTS.
162170 04-11

ANTIDEPRESSANTS AS A PROPHYLAXIS AGAINST DEPRESSION IN THE OBSESSIVE COMPULSIVE PERSON.
163329 04-10

GEROVITAL-H3 IN TREATMENT OF DEPRESSION. PRELIMINARY RESULTS.
166390 04-09

MODERN TRENDS IN THE DIAGNOSIS AND TREATMENT OF DEPRESSION: CHANGES IN TREATMENT METHODS AND THEIR RESULTS.
166934 04-09

THE USE OF DRUGS IN DEPRESSION: ITS THEORETICAL AND PRACTICAL BASIS.
167262 04-11

DEPRESSIONS

A STUDY OF THE TREATMENT OF REACTIVE AND NEUROTIC DEPRESSIONS BY A COMBINATION OF AMITRIPTYLINE AND PERPHENAZINE.
150255 04-09

NEW THERAPEUTIC POSSIBILITIES IN DEPRESSIONS: TRYPTOPHAN AND INHIBITORS OF MONOAMINE OXIDASE.
151394 04-10

DOES LITHIUM PREVENT DEPRESSIONS BY SUPPRESSING MANIAS?
161387 04-09

DEPRESSIVE

USEFULNESS OF COMBINED PHARMACOLOGICAL TREATMENT IN ENDOGENOUS DEPRESSIVE SYNDROMES.
150748 04-09

RESULTS OBTAINED FROM 51 CASES OF DEPRESSIVE SYNDROMES TREATED WITH DESIPRAMINE BY SLOW PHLEBOCLYSIS.
151264 04-09

THE ACTION OF ANTIDEPRESSANTS AND CONVULSIVE TREATMENT UPON THE HIGHER NERVOUS ACTIVITY IN DEPRESSIVE STATES.
152152 04-09

METABOLISM, ANTICHOLINERGIC EFFECTS, AND THERAPEUTIC OUTCOME OF DESMETHYLIMIPRAMINE IN DEPRESSIVE ILLNESS.
153121 04-09

CLINICAL EVALUATION OF IMIPRAMINE-N-OXIDE (IPNO) IN THE TREATMENT OF DEPRESSIVE STATES.
154979 04-09

COMBINED THYROID (TRIIODOTHYRONINE) TRICYCLIC ANTIDEPRESSANT TREATMENT IN DEPRESSIVE STATES.
154980 04-09

CLINICAL RESPONSE TO AMITRIPTYLINE AND CHLORDIAZEPOXIDE AMITRIPTYLINE (LIMBITROL) IN ANXIETY DEPRESSIVE STATES: A DOUBLE-BLIND STUDY.
155887 04-10

THIORIDAZINE: ALLEVIATION OF THE MIXED ANXIETY DEPRESSIVE PSYCHONEUROTIC STATE.
159067 04-14

THE MONOAMINE OXIDASE INHIBITOR, PHENELZINE, IN THE TREATMENT OF DEPRESSIVE ANXIETY STATES.
159776 04-09

AN EVALUATION OF CONTINUATION THERAPY WITH TRICYCLIC ANTIDEPRESSANTS IN DEPRESSIVE ILLNESS.
162636 04-09

PSYCHOPHARMACOLOGY OF THE DEPRESSIVE NEUROSIS.
163994 04-09

METABOLISM OF TRYPTOPHAN IN DEPRESSIVE DISEASE.
164720 04-09

DEPRIVATION

EFFECTS OF FOOD DEPRIVATION AND INITIAL LEVELS ON A WHEEL-RUNNING RESPONSE TO METHAMPHETAMINE.
152354 04-03

COMPARISON OF CHLORDIAZEPOXIDE AND FOOD DEPRIVATION IN RATS ON A FIXED-RATIO SATIATION SCHEDULE.
153599 04-04

DEPRIVED

INTAKE OF DIAZEPAM AND HASHISH BY ALCOHOL PREFERRING RATS DEPRIVED OF ALCOHOL.
153571 04-03

ACUTE EFFECTS OF TWO TETRAHYDROCANNABINOLS (DELTA9-THC AND DELTA8-THC) ON WATER INTAKE IN WATER DEPRIVED RATS: IMPLICATIONS FOR BEHAVIORAL STUDIES ON MARIHUANA COMPOUNDS.
157149 04-04

DERIVATIVE

INTERACTION OF THE IMIDAZOLONE DERIVATIVE GPA-1851 WITH HEPATIC MICROSOMAL DRUG METABOLISM.
151906 04-03

EXPERIMENTAL AND CLINICAL STUDIES OF THE ANTICONVULSANT PROPERTIES OF A BENZODIAZEPINE DERIVATIVE, CLONAZEPAM (RO-5-4023).
158291 04-13

STUDY ON THE ABSORPTION AND EXCRETION OF RESERPINE AND ITS DERIVATIVE, BIETASERPINE.
158514 04-03

AN ASSAY PROCEDURE FOR TRYPTAMINE IN BRAIN AND SPINAL CORD USING ITS 3H DANSYL DERIVATIVE.
161380 04-06

STUDIES ON THE EFFECT OF CYCLAZOCINE, A BENZOMORPHAN DERIVATIVE, ON THE SYMPATHETIC NERVOUS SYSTEM. (PH.D. DISSERTATION).
163534 04-03

EFFECT OF AN AMPHETAMINE DERIVATIVE IN RAT ADIPOSE TISSUE LIPOLYSIS AND GLYCEROL UTILIZATION IN VITRO.
166693 04-03

DERIVATIVES

MACROMERINE, NORMACROMERINE AND BISNORMACROMERINE: NONPSYCHOACTIVE METHYLATED DERIVATIVES OF NOREPINEPHRINE.
150298 04-04

CACTUS ALKALOIDS XV: BETA-PHENETHYLAMINE DERIVATIVES FROM CORYPHANTHA-MACROMERIS VAR. RUNYONII.
150411 04-01

PSYCHOPHARMACEUTICALS. II. PHENOTHIAZINE DERIVATIVES.
150775 04-07

ON THE MECHANISM OF THE ANTICONVULSIVE ACTION OF DERIVATIVES OF BENZODIAZEPINE AND DIPHENYLHYDANTOIN.
151814 04-03

SCRATCHING RESPONSE INDUCED IN MICE BY MESCALINE AND RELATED AMPHETAMINE DERIVATIVES.
152431 04-04

ANTAGONISTIC ACTIVITY OF SOME PHENOTHIAZINE DERIVATIVES AGAINST NEUROHUMORAL TRANSMITTERS.
157139 04-03

EFFECT OF SOME LIPID SOLUBLE DERIVATIVES OF AMPHETAMINE ON AMPHETAMINE LEVELS IN RAT BRAIN.
163804 04-03

EVIDENCE FOR THE BIOGENIC FORMATION OF AMPHETAMINE DERIVATIVES FROM COMPONENTS OF NUTMEG.
165997 04-01

DERIVED

ANTAGONISTIC ACTIONS OF ALPHA-METHYLNORADRENALINE DERIVED FROM ALPHA-METHYLDOPA.
156803 04-03

DOPAMINE DERIVED TETRAHYDROISOQUINOLINE ALKALOIDS -- INHIBITORS OF NEUROAMINE METABOLISM.
160546 04-03

DESCENDING
ANTAGONISM OF DESCENDING EFFECTS OF THE SUBSTANTIA-NIGRA ON LUMBO-SACRAL MONOSYNAPTIC REFLEXES.
160635 04-03

DESENSITIZATION
DECLINING-DOSE DRUG DESENSITIZATION FOR PHOBIAS: CLINICAL AND PSYCHOPHYSIOLOGICAL STUDIES.
153607 04-10
CONTROLLED EVALUATION OF INTRAVENOUS DRUGS IN THE SPECIFIC DESENSITIZATION OF PHOBIAS.
153609 04-10
THE MANAGEMENT OF SEVERE AGORAPHOBIA: A COMPARISON OF IPRONIAZID AND SYSTEMATIC DESENSITIZATION.
163751 04-10

DESGLYCINAMIDE9-LYSINE
FACILITATION OF DEVELOPMENT OF TOLERANCE TO MORPHINE BY DESGLYCINAMIDE9-LYSINE VASOPRESSIN (DGVP). (UNPUBLISHED PAPER).
162738 04-03

DESIGN
RITALIN AS THE INDEPENDENT VARIABLE IN A REVERSAL DESIGN. (PH.D. DISSERTATION).
163512 04-16

DESIPRAMINE
INTERACTION BETWEEN CLONIDINE AND DESIPRAMINE IN MAN.
150827 04-15
RESULTS OBTAINED FROM 51 CASES OF DEPRESSIVE SYNDROMES TREATED WITH DESIPRAMINE BY SLOW PHLEBOCLYSIS.
151264 04-09
METABOLISM OF AMITRIPTYLINE, NORTRIPTYLINE, IMIPRAMINE AND DESIPRAMINE TO YIELD HYDROXYLAMINES.
156762 04-01
EFFECTS OF DESIPRAMINE AND RESERPINE ON FREE AND BOUND ACETYLCHOLINE IN RAT BRAIN.
156807 04-03
ANTAGONISM BY PROTRIPTYLINE AND DESIPRAMINE OF THE RESPONSE OF THE VAS-DEFERENS OF THE RAT TO NOREPINEPHRINE, ACETYLCHOLINE AND POTASSIUM.
157110 04-03

DESMETHYLIMIPRAMINE
STUDY ON THE EFFECT OF A RESERPINE-LIKE SUBSTANCE (TETRABENAZINE) FOLLOWED BY THE ADMINISTRATION OF A TRICYCLIC ANTIDEPRESSANT (DESMETHYLIMIPRAMINE) ON NORMAL SUBJECTS.
151304 04-07
DESMETHYLIMIPRAMINE AND THE HYPOTENSIVE ACTION OF CLONIDINE IN THE RABBIT.
152142 04-03
METABOLISM, ANTICHOLINERGIC EFFECTS, AND THERAPEUTIC OUTCOME OF DESMETHYLIMIPRAMINE IN DEPRESSIVE ILLNESS.
153121 04-09
EFFECT OF DESMETHYLIMIPRAMINE ON ACETYLCHOLINE UPTAKE BY SLICES OF RAT BRAIN CORTEX.
155494 04-03
EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF DESMETHYLIMIPRAMINE ON THE CONTENT OF NOREPINEPHRINE AND OTHER MONOAMINES IN THE RAT BRAIN.
166027 04-03

DESPAIR
PSYCHOTROPIC DRUGS: AGENTS OF HOPE OR DESPAIR.
163001 04-17

DETECTION
DETERMINATION OF A BENZOTHIAZEPIN-2-ONE IN BLOOD BY GLC ELECTRON CAPTURE DETECTION.
150413 04-06
CANNABIS-SATIVA L. (MARIJUANA) II: STANDARDIZED AND RELIABLE MICROSCOPIC METHOD FOR DETECTION AND IDENTIFICATION OF MARIJUANA.
150419 04-01
RAPID DETECTION OF BARBITURATES IN URINE.
156848 04-06

DETERIORATION
DIBENCOZIDE AND ALCOHOLIC MENTAL DETERIORATION.
161279 04-11

DETERMINANT
DRUGS AND PUNISHED RESPONDING: III. PUNISHMENT INTENSITY AS A DETERMINANT OF DRUG EFFECT.
150322 04-04

DETERMINATION
DETERMINATION OF TOTAL SALICYLATES, PHENACETIN AND/OR TOTAL N-ACETYL-P-AMINOPHENOL, AND CAFFEINE IN BIOLOGICAL SAMPLES AND ANALGESIC FORMULATIONS.
150410 04-01
DETERMINATION OF A BENZOTHIAZEPIN-2-ONE IN BLOOD BY GLC ELECTRON CAPTURE DETECTION.
150413 04-06
QUANTITATIVE DETERMINATION OF MORPHINE IN POPPY CAPSULES BY DIFFERENTIAL SPECTROPHOTOMETRY.
150416 04-01
FLUOROMETRIC DETERMINATION OF 3-METHOXYTYRAMINE AND 3-METHOXY-4-HYDROXYPHENYLETHANOL.
151632 04-01
QUANTITATIVE DETERMINATION OF DIAZEPAM IN BLOOD BY RADIOIMMUNOASSAY.
159370 04-06

DETOXICANTS
USE OF ORAL DDT IN THREE HUMAN BARBITURATE INTOXICATIONS: HEPATIC ENZYME INDUCTION BY RECIPROCAL DETOXICANTS.
155205 04-15

DETOXIFIED
DRUG TREATMENT OF ANXIETY AND DEPRESSION IN DETOXIFIED ALCOHOLIC PATIENTS.
162170 04-11

DEUTERIUM
DEUTERIUM SUBSTITUTED AMPHETAMINE AS AN INTERNAL STANDARD IN A GC/MS ASSAY FOR AMPHETAMINE.
156906 04-06

DEVELOPING
GROWTH AND BEHAVIORAL CHANGES IN DEVELOPING RATS TREATED INTRACISTERNALLY WITH 6-HYDROXYDOPAMINE: EVIDENCE FOR INVOLVEMENT OF BRAIN DOPAMINE.
157117 04-03

DEVELOPMENT
CONTRIBUTIONS OF DIFFERENTIAL HOUSING TO BRAIN DEVELOPMENT: SOME IMPLICATIONS FOR SLEEP BEHAVIOR.
151705 04-03
DEVELOPMENT AND CHARACTERISTICS OF THE HISTAMINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RABBIT CEREBRAL CORTEX. (UNPUBLISHED PAPER).
154372 04-03
NEW DRUG DEVELOPMENT IN THE UNITED-KINGDOM.
155270 04-17
FACILITATION OF DEVELOPMENT OF TOLERANCE TO MORPHINE BY DESGLYCINAMIDE9-LYSINE VASOPRESSIN (DGVP). (UNPUBLISHED PAPER).
162738 04-03
BIOLOGICAL MECHANISMS UNDERLYING THE DEVELOPMENT OF BEHAVIORAL TOLERANCE TO DIISOPROPYLFLUOROPHOSPHATE. (PH.D. DISSERTATION).
163535 04-03
SEX-ROLE DEVELOPMENT AND RESPONSE TO MEDICATION BY PSYCHIATRIC INPATIENTS.
165189 04-17
EFFECT OF CHEMICAL SYMPATHECTOMY ON MORPHINE ANTINOCICEPTION AND TOLERANCE DEVELOPMENT IN THE RAT.
166694 04-03

DEVELOPMENTAL
DEVELOPMENTAL CHANGES IN NEUROCHEMISTRY DURING THE MATURATION OF SLEEP BEHAVIOR.
151707 04-03

DEVELOPMENTS
DRUG DEVELOPMENTS IN EUROPE: DISCOVERY OF TETRACYCLIC PSYCHOTROPIC DRUGS.
155268 04-17
NEW DRUG DEVELOPMENTS IN GERMAN-SPEAKING COUNTRIES.
155271 04-17
NEW DRUG DEVELOPMENTS IN FRANCE AND FRENCH-SPEAKING COUNTRIES.
155272 04-17
NEW DRUG DEVELOPMENTS IN THE LATIN-AMERICAS (ARGENTINA, COSTA-RICA, MEXICO, AND PANAMA).
155273 04-17
FOUR NEW DRUG DEVELOPMENTS FROM DENMARK, RUSSIA, AND WEST GERMANY.
155275 04-14
DEVELOPMENTS IN DRUG THERAPY.
166582 04-17

DEVICE
A DEVICE FOR ANALYZING DRUG-INDUCED RESPONSES IN FREELY MOVING MICE.
165729 04-06

DEXAMETHASONE
GROWTH OF SUCKLING RATS AFTER TREATMENT WITH DEXAMETHASONE OR CORTISOL: IMPLICATIONS FOR STEROID THERAPY IN HUMAN INFANTS.
159355 04-03
INHIBITION OF MORPHINE INDUCED PITUITARY ADRENAL ACTIVATION BY DEXAMETHASONE IN THE FEMALE RAT (37506).
162049 04-03

DEXTROAMPHETAMINE
RESPONSE TO TRIIODOTHYRONINE AND DEXTROAMPHETAMINE: A STUDY OF PRESCHOOL SCHIZOPHRENIC CHILDREN.
150432 04-08

THE EFFECT OF DEXTROAMPHETAMINE ON HABITUATION OF PERIPHERAL VASCULAR RESPONSE IN CHILDREN.
154739 04-14

DEXTROMETHORPHAN
DEXTROMETHORPHAN MONOAMINE OXIDASE INHIBITOR INTERACTION IN RABBITS.
163801 04-03

DGVP
FACILITATION OF DEVELOPMENT OF TOLERANCE TO MORPHINE BY DESGLYCINAMIDE9-LYSINE VASOPRESSIN (DGVP). (UNPUBLISHED PAPER).
162738 04-03

DIABETES
PSYCHOTROPIC DRUGS, DIABETES AND CHRONIC MENTAL PATIENTS.
155888 04-15

DIAGNOSIS
SKIN CONDUCTANCE BASAL LEVEL AND REACTIVITY IN SCHIZOPHRENIA AS A FUNCTION OF CHRONICITY, PREMORBID ADJUSTMENT, DIAGNOSIS, AND MEDICATION.
154170 04-08
MODERN TRENDS IN THE DIAGNOSIS AND TREATMENT OF DEPRESSION: CHANGES IN TREATMENT METHODS AND THEIR RESULTS.
166934 04-09

DIAZEPAM
HALOPERIDOL VERSUS DIAZEPAM: A DOUBLE-BLIND CROSSOVER CLINICAL TRIAL.
150790 04-10
THE INFLUENCE OF METHAMPHETAMINE AND DIAZEPAM ON THE AMPLITUDE CHANGES OF THE ACHILLES TENDON AND HOFFMANN REFLEX DURING A MENTAL TASK.
152074 04-14
ANALYSIS OF CLINICAL EXPERIENCES OBTAINED IN 100 CASES OF ACUTE APAURINE DIAZEPAM INTOXICATION.
152085 04-15
INTAKE OF DIAZEPAM AND HASHISH BY ALCOHOL PREFERRING RATS DEPRIVED OF ALCOHOL.
153571 04-03
SERUM CONCENTRATIONS OF DIAZEPAM IN SUBJECTS WITH EPILEPSY.
158152 04-11
ACUTE TOLERANCE TO DIAZEPAM IN CATS.
158295 04-03
CLINICAL USE OF DIAZEPAM AN INTENSIVE THERAPY: INDICATIONS AND RESULTS.
158297 04-17
SLEEP LABORATORY AND CLINICAL STUDIES OF THE EFFECTS OF BENZODIAZEPINES ON SLEEP: FLURAZEPAM, DIAZEPAM, CHLORDIAZEPOXIDE, AND RO-5-4200.
158299 04-14
COMPARATIVE STUDY OF THE EFFICACY OF DIAZEPAM, PENTOBARBITAL, AND FENTANYL-DROPERIDOL (THALAMONAL) AGAINST TOXICITY INDUCED BY LOCAL ANESTHETICS IN MICE.
158304 04-05
DOUBLE-BLIND TRIAL OF DIAZEPAM IN RHEUMATOID ARTHRITIS.
158353 04-17
EFFECTS OF CHLORPROMAZINE AND DIAZEPAM ON OPERANT RESPONSE DURATION IN RATS.
158489 04-04
QUANTITATIVE DETERMINATION OF DIAZEPAM IN BLOOD BY RADIOIMMUNOASSAY.
159370 04-06
INTRAVENOUS DIAZEPAM ADMINISTRATION.
159472 04-17
THE INTERACTION OF CHLORDIAZEPOXIDE, DIAZEPAM, AND NITRAZEPAM WITH CATECHOLAMINES AND HISTAMINE IN REGIONS OF THE RAT BRAIN.
160471 04-03
THE EFFECT OF DIAZEPAM ON THE TURNOVER OF CEREBRAL DOPAMINE.
160474 04-03
INCREASE IN MOUSE AND RAT BRAIN ACETYLCHOLINE LEVELS BY DIAZEPAM.
160475 04-03
DIAZEPAM AND BENZOCTAMINE: EFFECTS ON CERTAIN OBJECTIVE PARAMETERS OF MUSCULAR SPASTICITY.
160642 04-13
PSYCHOTROPIC DRUGS IN USE TODAY: THE ROLE OF DIAZEPAM IN MEDICAL PRACTICE.
163165 04-17
THE THERAPEUTIC USE OF DIAZEPAM FOR AKATHISIA.
163333 04-08
THE TREATMENT OF MUSCLE CONTRACTION HEADACHES WITH DIAZEPAM.
163681 04-11
DIAZEPAM IN THE TREATMENT OF INSOMNIA IN PSYCHIATRIC PATIENTS.
163682 04-11
COMPARATIVE PSYCHOPHYSIOLOGICAL AND MOOD EFFECTS OF DIAZEPAM AND DIPOTASSIUM CLORAZEPATE.
163782 04-13
PROGRESSIVE CEREBELLAR DYSSYNERGIA: THE USE OF DIAZEPAM.
164699 04-11
BEHAVIORAL EFFECTS OF DIAZEPAM, PENTOBARBITAL, METHAMPHETAMINE AND THEIR COMBINATIONS ON DRL 20SEC FOR WATER.
165647 04-04
DIAZEPAM METABOLISM AND ANTICONVULSANT ACTIVITY IN NEWBORN ANIMALS.
166691 04-03
A DOUBLE-BLIND STUDY OF DIAZEPAM AND DOXEPIN USED IN ANXIETY TREATMENT.
166985 04-10
FLURAZEPAM VERSUS DIAZEPAM IN ANESTHESIA: A CLINICAL STUDY.
167232 04-13

DIBENCOZIDE
DIBENCOZIDE AND ALCOHOLIC MENTAL DETERIORATION.
161279 04-11

DIBENZEPINE
COMPARATIVE STUDY OF THE EFFICACY OF DIBENZEPINE, DOXEPINE AND CHLORIMIPRAMINE IN DEPRESSION.
156565 04-09

DIBENZOTHIAZEPINE
SPECIFIC CHARACTERISTICS OF DIBENZOTHIAZEPINE IN PSYCHOTHERAPY.
149745 04-11

DIBUTYRYL
THE EFFECT OF TRIVASTAL, HALOPERIDOL AND DIBUTYRYL CYCLIC AMP ON (14C)DOPAMINE SYNTHESIS IN RAT STRIATUM.
156766 04-03
THE BEHAVIORAL EFFECTS OF DIBUTYRYL CYCLIC AMP IN MICE.
163696 04-04

DICHLOROPHENYLAMINO
CHARACTERISTICS OF ABNORMAL BEHAVIOR INDUCED BY 2-(2,6 DICHLOROPHENYLAMINO)-2 IMIDAZOLINE (ST-155) IN MICE.
158494 04-04

DICOUMAROL
THE COMPLEXITY OF THE INHIBITORY ACTION OF DICOUMAROL ON THE MIXED FUNCTION OXIDASE SYSTEM OF RAT LIVER MICROSOMES.
150582 04-03

DIELDRIN
BRAIN BIOGENIC AMINES: DEPLETION BY CHRONIC DIELDRIN EXPOSURE.
166788 04-05

DIENCEPHALO
ELECTROPHYSIOLOGICAL ANALYSIS OF DIENCEPHALO - AMYGDALOID INTERRELATIONS.
152101 04-03

DIET
LITHIUM TOXICITY OCCURRING WITH A REDUCING DIET.
153613 04-09

DIETHYLAMIDE
LYSERGIC ACID DIETHYLAMIDE: ITS EFFECTS ON HUMAN CHROMOSOMES AND THE HUMAN ORGANISM IN UTERO. A REVIEW OF CURRENT FINDINGS.
156527 04-15
EFFECTS OF LYSERGIC ACID DIETHYLAMIDE ON THE UPTAKE AND RETENTION OF BRAIN 5-HYDROXYTRYPTAMINE IN VIVO AND IN VITRO.
160646 04-03
D-LYSERGIC ACID DIETHYLAMIDE (LSD) -- EFFECT ON BIOGENIC AMINES EXCRETION IN MAN.
160802 04-13
THE SUBCELLULAR DISTRIBUTION OF LYSERGIC ACID DIETHYLAMIDE IN THE RAT BRAIN.
162956 04-03

DIETHYLAMINOETHANOL
INHIBITION OF RENAL TUBULAR TRANSPORT OF MORPHINE BY DIETHYLAMINOETHANOL IN THE CHICKEN.
152162 04-03

DIETHYLAMINOETHYL
INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE.
150583 04-03

DIETHYLDITHIOCARBAMATE
EFFECTS OF DIETHYLDITHIOCARBAMATE AND ETHANOL ON THE IN VIVO METABOLISM AND PHARMACOKINETICS OF AMPHETAMINE IN THE RAT.
158775 04-03
THE SUPPRESSION IN RABBITS OF THE LOCOMOTOR EFFECTS OF DOPA BY DIETHYLDITHIOCARBAMATE.
161340 04-03

DIFFERENTIALLY
EFFECTS OF D-AMPHETAMINE ON THE INCORPORATION OF CARBON ATOMS OF D-MANNOSE INTO THE BRAINS AND SERA OF DIFFERENTIALLY HOUSED MICE: SHORT-TERM REVERSIBILITY OF THESE EFFECTS.
163779 04-03

DIFFERENTIATION
THE DIFFERENTIATION OF OPERANT AND ADJUNCTIVE BEHAVIORS. (PH.D. DISSERTATION).
167237 04-04

DIFFERING
DELTA9-TETRAHYDROCANNABINOL AND ETHANOL: DIFFERENTIAL EFFECTS ON SYMPATHETIC ACTIVITY IN DIFFERING ENVIRONMENTAL SETTING.
154261 04-03

DIFLUOROAMPHETAMINE
METABOLISM OF AMPHETAMINE AND BETA,BETA DIFLUOROAMPHETAMINE IN PHENOBARBITAL TREATED RATS.
155493 04-03

DIGITOXIGENIN
DIGITOXIGENIN METABOLISM BY RAT LIVER MICROSOMES AND ITS INDUCTION BY PHENOBARBITAL.
160200 04-03

DIHYDROXYPHENYL
IDENTIFICATION OF 5-(3,4 DIHYDROXYPHENYL)-5 PHENYLHYDANTOIN AS A METABOLITE OF 5,5 DIPHENYLHYDANTOIN (PHENYTOIN) IN RATS AND MAN.
156650 04-06

DIHYDROXYPHENYLALANINE
EFFECTS OF L-TRYPTOPHAN, L-3,4,DIHYDROXYPHENYLALANINE AND TRANYLCYPROMINE ON THE ELECTROENCEPHALOGRAM AND ON PHOTICALLY INDUCED EPILEPSY IN THE BABOON, PAPIO-PAPIO.
152044 04-03
UPTAKE AND METABOLISM OF L-3,4 DIHYDROXYPHENYLALANINE (DOPA) IN RAT TISSUES.
166022 04-05

DIHYDROXYTRYPTAMINE
EFFECT OF 6-HYDROXYDOPAMINE, 5, 6 DIHYDROXYTRYPTAMINE AND RAPHE LESIONS ON THE ANTINOCICEPTIVE ACTIONS OF MORPHINE IN RATS.
157141 04-03
EFFECTS OF INTRACEREBRAL INJECTIONS OF 5,6 DIHYDROXYTRYPTAMINE ON CENTRAL MONOAMINE NEURONS: EVIDENT FOR SELECTIVE DEGENERATION OF CENTRAL 5-HYDROXYTRYPTAMINE NEURONS.
162894 04-03
LONG-TERM RECOVERY OF SEROTONIN CONCENTRATIONS IN THE RAT CNS FOLLOWING 5,6 DIHYDROXYTRYPTAMINE.
163697 04-03
DECREASED ANTINOCICEPTIVE ACTIVITY OF MORPHINE IN RATS PRETREATED INTRAVENTRICULARLY WITH 5,6 DIHYDROXYTRYPTAMINE, A LONG-LASTING SELECTIVE DEPLETION OF BRAIN SEROTONIN.
163775 04-03

DIISOPROPYLFLUOROPHOSPHATE
BIOLOGICAL MECHANISMS UNDERLYING THE DEVELOPMENT OF BEHAVIORAL TOLERANCE TO DIISOPROPYLFLUOROPHOSPHATE. (PH.D. DISSERTATION).
163535 04-03

DIMENSION
SYMPTOMATIC VOLUNTEERS: ANOTHER PATIENT DIMENSION FOR CLINICAL TRIALS.
156938 04-16

DIMETHOTHIAZINE
DIMETHOTHIAZINE IN SPASTICITY.
161265 04-07

DIMETHOXY-4-METHYLAMPHETAMINE
CARDIOVASCULAR EFFECTS OF 2,5 DIMETHOXY-4-METHYLAMPHETAMINE (DOM, STP).
157068 04-03
BIOCHEMICAL AND PHARMACOLOGICAL STUDY OF 2,5 DIMETHOXY-4-METHYLAMPHETAMINE (DOM, STP) AND ANALOGS. (PH.D. DISSERTATION).
159826 04-03
SOME EFFECTS OF THE HALLUCINOGENIC DRUG 2,5 DIMETHOXY-4-METHYLAMPHETAMINE ON THE METABOLISM OF BIOGENIC AMINES IN THE RAT BRAIN.
163749 04-03

DIMETHYLETHYLENEDIAMINES
AUGMENTATION OF PRESSOR RESPONSE TO CATECHOLAMINE BY N,N DIMETHYLETHYLENEDIAMINES.
158476 04-03

DIMETHYLHEPTYL
COMPARISON OF BEHAVIORAL EFFECTS OF NICOTINE, D-AMPHETAMINE, CAFFEINE AND DIMETHYLHEPTYL TETRAHYDROCANNABINOL IN SQUIRREL MONKEYS.
163750 04-04

DIMETHYLTETRAHYDROPTERIN
FURTHER STUDIES ON THE INCREASED SYNTHESIS OF NOREPINEPHRINE DURING NERVE STIMULATION OF GUINEA-PIG VAS-DEFERENS PREPARATION: EFFECT OF TYROSINE AND 6,7 DIMETHYLTETRAHYDROPTERIN.
159368 04-03

DIMETHYLTRYPTAMINE
A DIMETHYLTRYPTAMINE FORMING ENZYME IN HUMAN BLOOD.
161892 04-17
THE EFFECTS OF N,N DIMETHYLTRYPTAMINE ON OPERANT BEHAVIOR IN SQUIRREL MONKEYS.
162274 04-04

DIOXIDE
BIOSYNTHESIS OF RESERPINE FROM CARBON-14 DIOXIDE.
156868 04-01

DIPEPTIDES
THE EFFECT OF RESERPINE, CHLORPROMAZINE AND NEMBUTAL ON LEVELS OF DIPEPTIDES IN RAT BRAIN AND MUSCLE.
160772 04-03

DIPHENOXYLATE
ACCIDENTAL INGESTION: METHADONE, PROPOXYPHENE (DARVON), OR DIPHENOXYLATE (LOMOTIL) POISONING.
161788 04-15

DIPHENYLHYDANTOIN
ON THE MECHANISM OF THE ANTICONVULSIVE ACTION OF DERIVATIVES OF BENZODIAZEPINE AND DIPHENYLHYDANTOIN.
151814 04-03
SERUM FOLATE LEVELS DURING ANTICONVULSANT THERAPY WITH DIPHENYLHYDANTOIN.
152875 04-14
IDENTIFICATION OF 5-(3,4 DIHYDROXYPHENYL)-5 PHENYLHYDANTOIN AS A METABOLITE OF 5,5 DIPHENYLHYDANTOIN (PHENYTOIN) IN RATS AND MAN.
156650 04-06
EFFECTS OF CANNABIDIOL AND OF DIPHENYLHYDANTOIN ON THE HIPPOCAMPUS AND ON LEARNING.
157145 04-04
EFFECTS OF DIPHENYLHYDANTOIN ON LOCAL CEREBRAL BLOOD FLOW. (UNPUBLISHED PAPER)
164809 04-03
PENTYLENETETRAZOL CONVULSIONS AND BRAIN CATECHOLAMINE TURNOVER RATE IN RATS AND MICE RECEIVING DIPHENYLHYDANTOIN AND BENZODIAZEPINES.
164834 04-03
EFFECT OF DIPHENYLHYDANTOIN ON THE UPTAKE AND CATABOLISM OF L-(3H)NOREPINEPHRINE IN VITRO IN RAT CEREBRAL CORTEX TISSUE.
166696 04-03

DIPHENYLHYDANTONIN-4-14C
INTERACTION OF DIPHENYLHYDANTONIN-4-14C WITH SUBCELLULAR FRACTIONS OF RAT BRAIN.
162949 04-03

DIPHENYLVALERATE
INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE.
150583 04-03

DIPOTASSIUM
CLORAZEPATE DIPOTASSIUM: A NEW BENZODIAZEPINE ANTIANXIETY AGENT.
156940 04-10
COMPARATIVE PSYCHOPHYSIOLOGICAL AND MOOD EFFECTS OF DIAZEPAM AND DIPOTASSIUM CLORAZEPATE.
163782 04-13

DIPYRIDAMOLE
INHIBITION OF URIDINE INCORPORATION INTO RNA IN MAMMALIAN CELLS BY AGENTS AFFECTING THE PROPERTIES OF THE CELL MEMBRANE: CHLORPROMAZINE, DIPYRIDAMOLE AND PHENYLETHANOL.
166700 04-03

DIRECT
NEUROMUSCULAR BLOCKING DRUGS AND THE HEART RATE RESPONSE TO DIRECT PREGANGLIONIC STIMULATION OF THE SYMPATHETICS AND PARASYMPATHETICS IN THE CAT.
153171 04-03

DIRECTORY
INTERNATIONAL DIRECTORY OF INVESTIGATORS IN PSYCHOPHARMACOLOGY.
161669 04-17

DISCHARGE
PATTERN OF SYMPATHETIC NERVOUS SYSTEM (SNS) DISCHARGE AND THE BLOOD PRESSURE RESPONSE TO FOOTSHOCK IN THE RAT.
153202 04-03

DISCOVERY
DRUG DEVELOPMENTS IN EUROPE: DISCOVERY OF TETRACYCLIC PSYCHOTROPIC DRUGS.
155268 04-17

DISCRIMINABLE
A BEHAVIORAL AND PHARMACOLOGICAL ANALYSIS OF SOME DISCRIMINABLE PROPERTIES OF D-LSD IN RATS.
166728 04-04

DISCRIMINATED
ECS PRODUCED DISRUPTION OR FACILITATION OF DISCRIMINATED ACTIVE AVOIDANCE PERFORMANCE IN RATS.
157094 04-03

DISCRIMINATION
ENHANCED APPETITIVE DISCRIMINATION LEARNING IN RATS TREATED WITH ALPHA-METHYLTYROSINE. 150320 04-04
EFFECTS OF CHLORDIAZEPOXIDE UPON SUCCESSIVE RED-GREEN DISCRIMINATION RESPONSES IN JAPANESE MONKEYS, MACACA-FUSCATA. 150325 04-04
PARA-CHLOROPHENYLALANINE: ITS EFFECTS ON AUDITORY DISCRIMINATION. 153104 04-04
INFLUENCE OF CHANGES IN ADRENERGIC AND CHOLINERGIC ACTIVITY UPON ACQUISITION OF OPERANT DISCRIMINATION IN ALBINO RATS. 154639 04-04
DISRUPTION OF DISSOCIATED LEARNING IN A DISCRIMINATION PARADIGM BY EMOTIONALLY IMPORTANT STIMULI. 157044 04-04
THE EFFECT OF CHLORPROMAZINE ON DISCRIMINATION PERFORMANCE AND THE PEAK SHIFT. 157072 04-04
THE EFFECTS OF METHYLPHENIDATE (RITALIN) UPON PERFORMANCE IN THE SUCCESSIVE DISCRIMINATION REVERSAL SITUATION. (PH.D. DISSERTATION). 163119 04-04
THE EFFECTS OF ATROPINE AND ESERINE ON SPATIAL DISCRIMINATION IN C57BL/10 MICE. (PH.D. DISSERTATION). 163132 04-04
AMPHETAMINE-INDUCED DISRUPTION OF TEMPORAL DISCRIMINATION BY RESPONSE DISINHIBITION. 163737 04-03

DISCRIMINATIVE
EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING. 158000 04-04
A DISCRIMINATIVE STUDY OF THE ACTION OF A PSYCHOTROPIC DRUG BY THE USE OF THE B.P.R.S. CARDS. 161278 04-11
TRANSFER OF STATE-DEPENDENT CONTROL OF DISCRIMINATIVE BEHAVIOUR BETWEEN SUBCUTANEOUSLY AND INTRAVENTRICULARLY ADMINISTERED NICOTINE AND SALINE. 163771 04-04

DISEASE
PSYCHOPATHOLOGICAL FACTORS IN MENIERES DISEASE. 150254 04-11
COMPARISON OF L-DOPA WITH ITS ASSOCIATION WITH AN L-DOPA DECARBOXYLASE INHIBITOR IN THE MANAGEMENT OF PARKINSONS DISEASE. 150631 04-15
LEVODOPA IN PARKINSONS DISEASE -- AUSTRALIAN COLLABORATIVE TRIAL. 150789 04-14
PLASMA TESTOSTERONE CONTENT OF MALE PATIENTS WITH PARKINSONS DISEASE DURING L-DOPA TREATMENT WITH OR WITHOUT DOPADECARBOXYLASE INHIBITOR. 151695 04-15
GILLES-DE-LA-TOURETTES DISEASE AND MINIMAL BRAIN DYSFUNCTION: AMPHETAMINE ISOMERS REVEAL CATECHOLAMINE CORRELATES IN AN AFFECTED PATIENT. 153097 04-11
ENDOCRINE EXOPHTHALMOS DURING LITHIUM THERAPY OF MANIC-DEPRESSIVE DISEASE. 155366 04-09
PSYCHOSIS IN FABRY DISEASE AND TREATMENT WITH PHENOXYBENZAMINE. 159775 04-07
PARKINSONS DISEASE: MODERN TREATMENT. 161673 04-13
SENSORIMOTOR COORDINATION IN PARKINSONS DISEASE BEFORE AND AFTER LEVODOPA THERAPY. 163805 04-13
THE METABOLISM OF 3H-TYROSINE AND 3H-DIHYDROXYPHENYLALANINE IN PARKINSONS DISEASE. (PH.D. DISSERTATION). 164443 04-13
METABOLISM OF TRYPTOPHAN IN DEPRESSIVE DISEASE. 164720 04-09

DISEASES
THE EFFECTS OF LONG-ACTING THIORIDAZINE IN SOME PSYCHIATRIC DISEASES. 149744 04-11
SPECIFIC CHEMOTHERAPY OF THE MOST FREQUENT SUDDEN NERVOUS DISEASES. 151004 04-11
THIOTHIXENE IN THE TREATMENT OF DISEASES OF THE SENIUM. 152210 04-07
DRUG-INDUCED DISEASES. 165745 04-15

DISINHIBITION
AMPHETAMINE-INDUCED DISRUPTION OF TEMPORAL DISCRIMINATION BY RESPONSE DISINHIBITION. 163737 04-03

DISINTEGRATION
CANNABIS AND TEMPORAL DISINTEGRATION IN EXPERIENCED AND NAIVE SUBJECTS. 149649 04-14

DISORDER
LITHIUM IN RECURRENT MANIC-DEPRESSIVE DISORDER. 162380 04-09
THE EFFECT OF SULPIRIDE ON THE VERTIGO OF MENIERES SYNDROME AND ON PSYCHOSOMATIC VESTIBULAR DISORDER. 165755 04-12
A LEAD INDUCED BEHAVIORAL DISORDER. 166785 04-05

DISORDERS
THE USE OF LITHIUM CARBONATE IN THE TREATMENT OF MOOD DISORDERS. 150798 04-09
PARANOID DISORDERS IN THE ELDERLY. 150845 04-09
MEDICAL DRUG-INDUCED MENTAL DISORDERS. 154984 04-15
LITHIUM CARBONATE AND CONVULSIVE DISORDERS. 156156 04-15
LITHIUM AS A PROPHYLACTIC AGENT IN RECURRING AFFECTIVE DISORDERS. 156416 04-09
MENTAL DISORDERS IN THE COURSE OF L-DOPA TREATMENT. 156568 04-15
PSYCHEDELIC (LSD) THERAPY OF NEUROTIC DISORDERS: SHORT-TERM EFFECTS. 162155 04-12
EPILEPSY IN INHERITED MENTAL AND MOTOR DISORDERS. 165193 04-13

DISPLACEMENT
DISPLACEMENT OF THIOPENTAL FROM PLASMA PROTEINS BY NONSTEROIDAL ANTIINFLAMMATORY AGENTS. 163635 04-05

DISPOSITION
DRUG INTERACTION -- EFFECT OF CHLORPROMAZINE ON THE DISPOSITION OF 8-14C-MESCALINE IN FETAL AND MATERNAL BRAIN AND LIVER IN PREGNANT MOUSE. 155221 04-03
THE EFFECTS OF THYROID STATE ON THE ACTION AND DISPOSITION OF PHENOTHIAZINES IN RODENTS. 155259 04-03
EFFECTS OF CHLORPROMAZINE AND HALOPERIDOL ON THE DISPOSITION OF MESCALINE-14C IN MICE. 157067 04-04
DRUG DISPOSITION IN THE FETUS AND NEWBORN INFANT. 159352 04-11

DISRUPTION
DOPA REVERSAL OF HYPOXIA INDUCED DISRUPTION OF THE CONDITIONED AVOIDANCE RESPONSE. 155904 04-04
POSSIBLE CATECHOLAMINE MEDIATION OF LEVALLORPHAN INDUCED BEHAVIOURAL DISRUPTION IN RATS. 157041 04-04
DISRUPTION OF DISSOCIATED LEARNING IN A DISCRIMINATION PARADIGM BY EMOTIONALLY IMPORTANT STIMULI. 157044 04-04
ECS PRODUCED DISRUPTION OR FACILITATION OF DISCRIMINATED ACTIVE AVOIDANCE PERFORMANCE IN RATS. 157094 04-03
THE EFFECT OF SOME SUBSTANCES OF THE PHENOTHIAZINE SERIES AND OF ALPHA-ADRENERGIC BLOCKING AGENTS ON SPINAL CORD ACTIVITY UNDER CONDITIONS OF DISRUPTION OF INHIBITORY MECHANISMS BY TETANUS TOXIN. 162921 04-03
AMPHETAMINE-INDUCED DISRUPTION OF TEMPORAL DISCRIMINATION BY RESPONSE DISINHIBITION. 163737 04-03

DISSOCIATED
DISRUPTION OF DISSOCIATED LEARNING IN A DISCRIMINATION PARADIGM BY EMOTIONALLY IMPORTANT STIMULI. 157044 04-04

DISSOCIATION
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) AND CHLORDIAZEPOXIDE (CDP) ON STATE-DEPENDENT LEARNING: EVIDENCE FOR ASYMMETRICAL DISSOCIATION. 150301 04-04
STATE-DEPENDENT LEARNING (DISSOCIATION OF LEARNING) WITH HALLUCINOGENS IN RATS. 158492 04-04
DISSOCIATION OF SOME BEHAVIORAL EFFECTS OF INTRAVENTRICULAR DOPAMINE AND NOREPINEPHRINE. (PH.D. DISSERTATION). 163450 04-04

DISSOCIATION OF TWO COMPONENTS OF RAT BEHAVIOR BY PSYCHOTROPIC DRUGS: UTILIZATION FOR STUDYING ANXIOLYTIC DRUGS.
163760 04-04

DISSOCIATION OF EXCITATORY AND HYPERPYREXIC EFFECTS OF LSD IN RATS TREATED WITH ALPHA-METHYLTYROSINE.
166732 04-03

DISTANCE
CANNABIS AND ALCOHOL: EFFECTS ON ESTIMATION OF TIME AND DISTANCE.
163777 04-14

DISTANCES
A COMPARISON OF COMMON INTERATOMIC DISTANCES IN SEROTONIN AND SOME HALLUCINOGENIC DRUGS.
167042 04-01

DISTRIBUTION
DISTRIBUTION OF SOME STRUCTURALLY RELATED PHARMACOLOGICAL AGENTS IN RAT BRAIN.
150584 04-03

TRICYCLIC ANTIDEPRESSANTS: ACTION ON SYNAPTOSOMAL ACETYLCHOLINESTERASE AND ATPASE IN THE BRAIN OF GUINEA-PIGS AND SUBCELLULAR DISTRIBUTION.
156813 04-03

EXPERIMENTAL STUDIES ON THE DISTRIBUTION AND EXCRETION OF 203HG-ETHYLMERCURY CHLORIDE.
158516 04-03

METABOLISM AND DISTRIBUTION OF CANNABINOIDS IN RATS AFTER DIFFERENT METHODS OF ADMINISTRATION.
160198 04-03

KINETICS OF GENERAL AND REGIONAL BRAIN DISTRIBUTION OF CLOSELY RELATED 7-CHLORO-1,4 BENZODIAZEPINES.
160468 04-03

KINETICS OF THE DISTRIBUTION OF 14C-DIAZEPAM AND ITS METABOLITES IN VARIOUS AREAS OF CAT BRAIN.
160478 04-03

THE SUBCELLULAR DISTRIBUTION OF LYSERGIC ACID DIETHYLAMIDE IN THE RAT BRAIN.
162956 04-03

PHARMACOKINETIC INTERACTION BETWEEN NEUROLEPTICS AND ANTIDEPRESSANTS: EFFECT ON ORGAN DISTRIBUTION AND METABOLIC PATTERN.
166984 04-03

DISTURBANCE
T3 AND TSH RESPONSE TO TRH: NEWER ASPECTS OF LITHIUM INDUCED THYROID DISTURBANCE IN MAN.
155255 04-13

DISTURBANCES
THE EFFECT OF PHARMACOLOGIC TREATMENT ON ASSOCIATION DISTURBANCES IN SCHIZOPHRENIA.
150745 04-08

MANAGEMENT OF EMOTIONAL DISTURBANCES IN GERIATRIC PATIENTS.
152031 04-11

A CASE OF TURNERS SYNDROME WITH PSYCHIC DISTURBANCES.
156552 04-11

DISTURBED
CHLORPROMAZINE TREATMENT OF DISTURBED MONKEYS.
164715 04-04

DISULFIRAM
OLFACTORY FOREBRAIN SEIZURES INDUCED BY METHAMPHETAMINE AND DISULFIRAM.
166064 04-03

DIURESIS
PYRAZOLE DIURESIS IN RATS WITH AND WITHOUT ALCOHOL.
154613 04-03

DIURNAL
DIURNAL RHYTHM IN BEHAVIORAL EFFECTS OF METHAMPHETAMINE, P-CHLOROMETHAMPHETAMINE AND SCOPOLAMINE.
159366 04-04

DIURNAL VARIATIONS OF LITHIUM CLEARANCE IN THE RAT.
160220 04-03

DIVERSION
SEROTONIN METABOLISM IN RAT BRAIN AFTER SURGICAL DIVERSION OF THE PORTAL VENOUS CIRCULATION.
159449 04-03

DIVIDED
PHENOTHIAZINE EFFECTS IN GOOD PREMORBID SCHIZOPHRENICS DIVIDED INTO PARANOID NONPARANOID STATUS.
162169 04-08

DL-ALANINE
BIOGENIC AMINE DEPLETING EFFECTS OF BENZIMIDAZOLE 5(6) DL-ALANINE.
150315 04-03

DL-AMPHETAMINE
EFFECTS OF REPEATED ADMINISTRATION OF DL-AMPHETAMINE AND METHAMPHETAMINE ON TOLERANCE TO HYPERACTIVITY.
162959 04-04

DL-DELTA9-TETRAHYDROCANNABINOL
DEPTH PERCEPTION IN RATS FOLLOWING ACUTE OR CHRONIC INJECTIONS OF DL-DELTA9-TETRAHYDROCANNABINOL.
150420 04-04

DL-METHADONE
GROWTH RETARDATION IN YOUNG MICE TREATED WITH DL-METHADONE.
159654 04-03

DL-NOREPINEPHRINE
THE EFFECTS OF 6-HYDROXYDOPAMINE, DOPAMINE AND DL-NOREPINEPHRINE ON FOOD INTAKE AND WATER CONSUMPTION, SELF-STIMULATION, TEMPERATURE AND ELECTROENCEPHALOGRAPHIC ACTIVITY IN THE RAT.
150352 04-04

DL-PROPRANOLOL
THE EFFECT OF DL-PROPRANOLOL, D-PROPRANOLOL AND PRACTOLOL ON THE HYPERACTIVITY INDUCED IN RATS BY PROLONGED ISOLATION.
157040 04-04

DMT
DMT -- A POSSIBLE RELATIONSHIP TO SCHIZOPHRENIA. (UNPUBLISHED PAPER).
158587 04-08

PARTICIPATION OF RETINAL MECHANISMS IN DMT HALLUCINATIONS.
163633 04-03

DOCTORS
DRUGS, DOCTORS AND JUNKIES.
150614 04-17

EXPERIMENTS BEHIND BARS: DOCTORS, DRUG COMPANIES, AND PRISONERS.
156835 04-07

HOW ANTAGONISTIC CAN DOCTORS BIAS BE ON DRUG EFFECT? OXAZEPAM AS AN ANTIANXIETY AGENT.
160215 04-14

DOG
RELAPSE TO MORPHINE USE IN DOG.
150317 04-04

INTERACTION OF OXOTREMORINE WITH ATROPINE, CHLORPROMAZINE, CYPROHEPTADINE, IMIPRAMINE AND PHENOXYBENZAMINE ON THE FLEXOR REFLEX OF THE CHRONIC SPINAL DOG.
150318 04-03

EFFECT OF PENTOBARBITAL ON AMINO ACID AND UREA FLUX IN THE ISOLATED DOG BRAIN.
151733 04-03

BLOCKADE BY BUFOTENIDINE OF THE SEROTONIN AND NARCOTIC ANALGESICS INDUCED CONTRACTION OF DOG INTESTINE IN VIVO.
156825 04-03

THE EFFECT OF LITHIUM ON ADRENERGIC FUNCTION IN DOG.
163695 04-03

POTENTIATING EFFECT OF CHLORPROMAZINE ON GLYCERYL GUAIACOLATE ETHER INDUCED HEMOLYSIS OF RAT, DOG AND HUMAN BLOOD IN VITRO.
166790 04-13

DOGS
PHARMACOKINETICS OF THE BETA-ADRENERGIC BLOCKER SOTALOL IN DOGS.
150409 04-03

DOMINANT
THE EFFECTS OF PIMOZIDE ON DOMINANT SUBORDINATE BEHAVIOUR IN WISTAR RATS COMPETING FOR FOOD.
163758 04-04

DOPA
TRH: ENHANCEMENT OF DOPA ACTIVITY IN NORMAL INTACT, HYPOPHYSECTOMIZED AND THYROIDECTOMIZED ANIMALS.
155252 04-03

TRH AND THYROID HORMONES: DOPA RESPONSE AND DOPA METABOLISM.
155253 04-03

DOPA REVERSAL OF HYPOXIA INDUCED DISRUPTION OF THE CONDITIONED AVOIDANCE RESPONSE.
155904 04-04

BLOOD-BRAIN BARRIER TO CARBIDOPA (MK-486) AND RO-4-4602, PERIPHERAL DOPA DECARBOXYLASE INHIBITORS.
155906 04-03

ON THE USE OF ETHANOL AS A SCAVENGER IN STORING LABELLED DOPA AND 5-HYDROXYTRYPTAMINE IN AQUEOUS SOLUTIONS.
156806 04-06

THE SUPPRESSION IN RABBITS OF THE LOCOMOTOR EFFECTS OF DOPA BY DIETHYLDITHIOCARBAMATE.
161340 04-03

THE TONIC VIBRATION REFLEX SEEN IN THE ACUTE SPINAL CAT AFTER TREATMENT WITH DOPA.
162892 04-03

UPTAKE AND METABOLISM OF L-3,4 DIHYDROXYPHENYLALANINE (DOPA) IN RAT TISSUES.
166022 04-05

DOPADECARBOXYLASE
PLASMA TESTOSTERONE CONTENT OF MALE PATIENTS WITH PARKINSONS DISEASE DURING L-DOPA TREATMENT WITH OR WITHOUT DOPADECARBOXYLASE INHIBITOR.
151695 04-15

DOPAMINE
TREMOR AND INVOLUNTARY MOVEMENTS IN MONKEYS: EFFECT OF L-DOPA AND OF A DOPAMINE RECEPTOR STIMULATING AGENT.
149651 04-03

DOPAMINE AND ABNORMAL MOVEMENTS.
150221 04-11

THE EFFECTS OF 6-HYDROXYDOPAMINE, DOPAMINE AND DL-NOREPINEPHRINE ON FOOD INTAKE AND WATER CONSUMPTION, SELF-STIMULATION, TEMPERATURE AND ELECTROENCEPHALOGRAPHIC ACTIVITY IN THE RAT.
150352 04-04

DOPAMINE AND NORADRENALINE RECEPTOR STIMULATION: REVERSAL OF RESERPINE INDUCED SUPPRESSION OF MOTOR ACTIVITY.
150664 04-03

THE EXCRETION OF NOREPINEPHRINE AND DOPAMINE ALCOHOLIC METABOLITES AFTER 6-HYDROXYDOPAMINE. (UNPUBLISHED PAPER).
151643 04-03

DOPAMINE RECEPTOR BLOCKADE -- A CENTRAL ACTION OF CHLORPROMAZINE ON STRIATAL NEURONS.
152439 04-13

EFFECT OF LITHIUM ON BRAIN DOPAMINE.
155210 04-03

EFFECT OF ERGOT DRUGS ON CENTRAL CATECHOLAMINE NEURONS: EVIDENCE FOR A STIMULATION OF CENTRAL DOPAMINE NEURONS.
155903 04-03

ABNORMAL O-METHYLATED DOPAMINE METABOLITES: THE ENDOGENOUS TOXINS OF SCHIZOPHRENIA OR PARKINSONISM
155905 04-13

EFFECT OF CLOZAPINE ON THE TURNOVER OF DOPAMINE IN THE CORPUS-STRIATUM AND IN THE LIMBIC SYSTEM.
156765 04-03

THE EFFECT OF TRIVASTAL, HALOPERIDOL AND DIBUTYRYL CYCLIC AMP ON (14C)DOPAMINE SYNTHESIS IN RAT STRIATUM.
156766 04-03

CORRELATION BETWEEN BRAIN DOPAMINE LEVELS AND L-DOPA ACTIVITY IN ANTIPARKINSON TESTS.
156823 04-06

THE ROLE OF DOPAMINE AND NOREPINEPHRINE IN THE NALOXONE INDUCED ABSTINENCE OF MORPHINE DEPENDENT MICE.
157116 04-03

GROWTH AND BEHAVIORAL CHANGES IN DEVELOPING RATS TREATED INTRACISTERNALLY WITH 6-HYDROXYDOPAMINE: EVIDENCE FOR INVOLVEMENT OF BRAIN DOPAMINE.
157117 04-03

DOPAMINE ANTAGONISM AND ANTISCHIZOPHRENIC POTENCY OF NEUROLEPTIC DRUGS.
159450 04-08

DOPAMINE SENSITIVE ADENYLATE CYCLASE: THE DOPAMINE RECEPTOR IN THE MAMMALIAN NERVOUS SYSTEM. (PH.D. DISSERTATION).
159484 04-01

INCREASE OF BRAIN LEVELS OF TRYPTOPHAN INDUCED BY INHIBITION OF DOPAMINE BETA-HYDROXYLASE (EC 1.14.2.1).
160230 04-01

THE EFFECT OF DIAZEPAM ON THE TURNOVER OF CEREBRAL DOPAMINE.
160474 04-03

DOPAMINE DERIVED TETRAHYDROISOQUINOLINE ALKALOIDS -- INHIBITORS OF NEUROAMINE METABOLISM.
160546 04-03

ANALYSIS OF THE EFFECTS OF APOMORPHINE AND BULBOCAPNINE IN RELATION TO THE PROPOSED DOPAMINE RECEPTOR.
161142 04-03

LEVODOPA AND DOPAMINE IN CEREBROSPINAL FLUID.
162139 04-06

DIFFERENTIAL EFFECTS OF RESERPINE AND ALPHA-METHYL-P-TYROSINE ON NOREPINEPHRINE AND DOPAMINE INDUCED BEHAVIORAL ACTIVITY.
162277 04-04

THE IN VIVO EFFECT OF TROPOLONE ON DOPAMINE METABOLISM AND THE CATECHOL-O-METHYLTRANSFERASE ACTIVITY IN THE STRIATUM OF THE RAT.
163321 04-03

DISSOCIATION OF SOME BEHAVIORAL EFFECTS OF INTRAVENTRICULAR DOPAMINE AND NOREPINEPHRINE. (PH.D. DISSERTATION).
163450 04-04

THE INFLUENCE OF PROBENECID ON THE METABOLISM OF SEROTONIN, DOPAMINE AND THEIR PRECURSORS IN MAN.
166726 04-13

DOPAMINE-BETA-HYDROXYLASE
INHIBITION OF BRAIN DOPAMINE-BETA-HYDROXYLASE ACTIVITY BY METHIMAZOLE.
156322 04-03

AXONAL TRANSPORT OF DOPAMINE-BETA-HYDROXYLASE BY HUMAN SURAL NERVES IN VITRO.
162880 04-13

DOPAMINERGIC
DRUG-INDUCED CHANGES OF STRIATAL CHOLINERGIC AND DOPAMINERGIC FUNCTIONS IN RATS WITH SPREADING DEPRESSION.
156797 04-03

DOPAMINERGIC NEURONS: EFFECT OF ANTIPSYCHOTIC DRUGS AND AMPHETAMINE ON SINGLE CELL ACTIVITY.
157111 04-03

COMPARISON OF EFFECTS OF L-DOPA, AMPHETAMINE AND APOMORPHINE ON FIRING RATE OF RAT DOPAMINERGIC NEURONES.
162974 04-03

DOPE
SEX-CRAZED DOPE FIENDS -- MYTH OR REALITY?
151309 04-04

DOSAGE
DOSAGE CONTROL OF DRUGS WITH LETHAL POTENCY FOR UNIVERSITY LEVEL PATIENTS.
150579 04-15

ADMINISTRATION OF AMANTADINE TO PATIENTS ON OPTIMUM L-DOPA DOSAGE.
151690 04-11

THE 24-HOUR SERUM LITHIUM LEVEL AS A PROGNOSTICATOR OF DOSAGE REQUIREMENTS.
152911 04-16

THE IMPORTANCE OF DOSAGE IN ANTIPSYCHOTIC DRUG ADMINISTRATION -- A REVIEW OF DOSE-RESPONSE STUDIES.
153096 04-08

DOSE
SINGLE DOSE EFFECT OF MARIHUANA SMOKE: BRONCHIAL DYNAMICS AND RESPIRATORY CENTER SENSITIVITY IN NORMAL SUBJECTS.
150620 04-13

FIXED-INTERVAL SCHEDULE OF COCAINE REINFORCEMENT: EFFECT OF DOSE AND INFUSION DURATION.
155411 04-04

ATTENUATION OF THE MORPHINE EEG CONTINUUM FOLLOWING A REPEAT DOSE WITHIN 16 DAYS: DELAYED TOLERANCE IN THE RAT.
160633 04-03

DOSE-RESPONSE
THE IMPORTANCE OF DOSAGE IN ANTIPSYCHOTIC DRUG ADMINISTRATION -- A REVIEW OF DOSE-RESPONSE STUDIES.
153096 04-08

DOSES
LOW DOSES OF HALOPERIDOL IN ANXIETY -- TENSION STATES.
150554 04-10

A PERMANENT CHANGE IN CONVULSIVE THRESHOLD IN NORMAL AND BRAIN-DAMAGED RATS WITH REPEATED SMALL DOSES OF PENTYLENETETRAZOL.
152437 04-03

SUBCHRONIC ORAL DOSES OF MARIHUANA EXTRACT.
153106 04-13

COMPARATIVE PHARMACOKINETICS OF OXAZEPAM AND NORTRIPTYLINE AFTER SINGLE ORAL DOSES IN MAN.
160469 04-13

THE EFFECT OF SMALL DOSES OF MECAMYLAMINE ON SHUTTLEBOX BEHAVIOR IN THE GUINEA-PIG.
163020 04-04

IMPAIRMENT OF PERFORMANCE WITH LOW DOSES OF MARIHUANA.
166720 04-14

DOUBLE-BLIND
HALOPERIDOL VERSUS DIAZEPAM: A DOUBLE-BLIND CROSSOVER CLINICAL TRIAL.
150790 04-10

A CONTROLLED DOUBLE-BLIND COMPARISON BETWEEN LOXAPINE SUCCINATE AND CHLORPROMAZINE IN ACUTE NEWLY HOSPITALIZED SCHIZOPHRENIC PATIENTS.
150835 04-08

THE THERAPEUTIC EFFECTS OF LORAZEPAN IN PSYCHOTIC PATIENTS TREATED WITH HALOPERIDOL: A DOUBLE-BLIND STUDY.
152209 04-09

A DOUBLE-BLIND COMPARISON OF HALOPERIDOL (HALDOL) AND THIORIDAZINE (MELLARIL) IN OUTPATIENT CHILDREN.
152212 04-11

MESORIDAZINE VERSUS CHLORPROMAZINE IN ACUTE SCHIZOPHRENIA: A DOUBLE-BLIND INVESTIGATION.
152708 04-08

CLINICAL RESPONSE TO AMITRIPTYLINE AND CHLORDIAZEPOXIDE AMITRIPTYLINE (LIMBITROL) IN ANXIETY DEPRESSIVE STATES: A DOUBLE-BLIND STUDY.
155887 04-10

A DOUBLE-BLIND CLINICAL TRIAL OF THE NEW HYPNOTIC MANDRAX.
156359 04-07

DOUBLE-BLIND TEST OF THREE ANTIDEPRESSANTS. SECOND COMMUNICATION: CLINICAL COMPARISON OF NOXIPTILINE, NOR-NOXIPTILINE AND AMITRIPTYLINE WITH THE AMP SYSTEM.
156849 04-09

A DOUBLE-BLIND COMPARISON OF HALOPERIDOL ORAL CONCENTRATE, HALOPERIDOL SOLUTABS AND PLACEBO IN THE TREATMENT OF CHRONIC SCHIZOPHRENIA.
156939 04-08

DOUBLE-BLIND TRIAL OF DIAZEPAM IN RHEUMATOID ARTHRITIS.
158353 04-17
TRYPTOPHAN AND AMITRIPTYLINE IN THE TREATMENT OF DEPRESSION: A DOUBLE-BLIND STUDY.
161386 04-09
HALOPERIDOL AND CHLORPROMAZINE: A DOUBLE-BLIND CROSSOVER TRIAL AND CLINICAL STUDY IN CHILDREN AND ADOLESCENTS.
161661 04-11
THE EFFECTS OF ANTIDEPRESSANT DRUGS ON PAIN RELIEF AND MOOD IN THE CHRONICALLY ILL: A DOUBLE-BLIND STUDY.
163331 04-11
DOUBLE-BLIND COMPARISON OF HALOPERIDOL AND THIORIDAZINE IN TREATMENT RESISTANT PSYCHONEUROTIC OUTPATIENTS.
163337 04-10
CHLORIMIPRAMINE: A DOUBLE-BLIND COMPARISON OF INTRAVENOUS VERSUS ORAL ADMINISTRATION IN DEPRESSED PATIENTS.
166729 04-09
A DOUBLE-BLIND STUDY OF DIAZEPAM AND DOXEPIN USED IN ANXIETY TREATMENT.
166985 04-10

DOVES
ROLE OF ADRENAL HORMONES IN INCUBATION BEHAVIOR OF MALE RING DOVES (STREPTOPELIA-RISORIA).
162667 04-03

DOXEPIN
DOXEPIN WITH OTHER DRUGS.
152168 04-15
THE EFFECTS OF DOXEPIN, ALONE AND TOGETHER WITH ALCOHOL, IN RELATION TO DRIVING SAFETY.
155841 04-14
PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09
A DOUBLE-BLIND STUDY OF DIAZEPAM AND DOXEPIN USED IN ANXIETY TREATMENT.
166985 04-10

DOXEPINE
COMPARATIVE STUDY OF THE EFFICACY OF DIBENZEPINE, DOXEPINE AND CHLORIMIPRAMINE IN DEPRESSION.
156565 04-09

DPT
DPT AS AN ADJUNCT IN PSYCHOTHERAPY OF ALCOHOLICS.
160221 04-11

DRINKING
EFFECTS OF D-AMPHETAMINE ON SCHEDULE CONTROLLED KEY PRESSING AND DRINKING IN THE CHIMPANZEE.
157119 04-04
OPIATE DEPENDENCE PRODUCED BY AD LIBITUM DRINKING OF MORPHINE IN WATER, SALINE, AND SUCROSE VEHICLES.
157147 04-04
CHARACTERIZATION OF CENTRAL ANGIOTENSIN II RECEPTORS INVOLVED IN THE ELICITATION OF DRINKING IN THE RAT.
162890 04-03
PUNISHMENT OF SACCHARIN DRINKING BY AMPHETAMINE IN RATS AND ITS REVERSAL BY CHLORDIAZEPOXIDE.
166165 04-04

DRIVING
THE EFFECTS OF DOXEPIN, ALONE AND TOGETHER WITH ALCOHOL, IN RELATION TO DRIVING SAFETY.
155841 04-14

DRL
BEHAVIORAL EFFECTS OF DIAZEPAM, PENTOBARBITAL, METHAMPHETAMINE AND THEIR COMBINATIONS ON DRL 20SEC FOR WATER.
165647 04-04

DRUG
THE EFFECT OF A STIMULANT DRUG (METHAMPHETAMINE) ON COGNITIVE IMPULSIVITY, PLANNING, NEW LEARNING, AND SOCIAL BEHAVIOR IN HYPERACTIVE CHILDREN. (PH.D. DISSERTATION).
149717 04-14
DRUGS AND PUNISHED RESPONDING: III. PUNISHMENT INTENSITY AS A DETERMINANT OF DRUG EFFECT.
150322 04-04
CONSCIOUSNESS, POWER AND DRUG EFFECTS.
150615 04-17
POTENTIATION OF THE EFFECTS OF CHLORPROMAZINE ON EXPLORATION IN THE RAT BY A PRIOR EXPERIENCE OF THE DRUG.
150671 04-04
DRUG THERAPY: HYPNOTIC DRUGS.
150829 04-17
PHARMACOLOGICAL TREATMENT OF CEREBRAL ARTERIOSCLEROSIS WITH A NEW DRUG COMBINATION.
151268 04-11
BEHAVIOURAL AND DRUG TREATMENT OF CHILDREN WITH SEVERE MENTAL HANDICAP.
151452 04-11
DRUG AND ELECTROSHOCK THERAPY.
151512 04-11
INTERACTION OF THE IMIDAZOLONE DERIVATIVE GPA-1851 WITH HEPATIC MICROSOMAL DRUG METABOLISM.
151906 04-03
TRICYCLIC ANTIDEPRESSANTS AND LIMB REDUCTION DEFORMITIES: A FURTHER COMMUNICATION FROM THE AUSTRALIAN DRUG EVALUATION COMMITTEE.
151932 04-15
DRUG ALLERGY TO THIOXANTHENE, MANIFESTED BY THE MORPHOLOGICAL PICTURE OF ERYTHEMA EXSUDATIVUM MULTIFORME, AS A RESULT OF TAKING CLOPENTHIXOL.
152089 04-15
AVOIDANCE DECREMENT PHENOMENA AND MEASUREMENTS OF DRUG EFFECTS.
152191 04-04
BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. I. CHLORPROMAZINE AND THIORIDAZINE.
152867 04-11
BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. II. MULTIVITAMIN SUPPLEMENT.
152868 04-11
THE IMPORTANCE OF DOSAGE IN ANTIPSYCHOTIC DRUG ADMINISTRATION -- A REVIEW OF DOSE-RESPONSE STUDIES.
153096 04-08
SOME CORRELATES OF MARIHUANA SELF-ADMINISTRATION IN MAN: A STUDY OF TITRATION OF INTAKE AS A FUNCTION OF DRUG POTENCY.
153100 04-13
BEHAVIOUR THERAPY VERSUS DRUG THERAPY IN THE TREATMENT OF PHOBIC NEUROSIS.
153606 04-10
DECLINING-DOSE DRUG DESENSITIZATION FOR PHOBIAS: CLINICAL AND PSYCHOPHYSIOLOGICAL STUDIES.
153607 04-10
ACUTE PAROTITIS ASSOCIATED WITH DEPRESSION AND PSYCHOACTIVE DRUG THERAPY.
155089 04-14
DRUG INTERACTION -- EFFECT OF CHLORPROMAZINE ON THE DISPOSITION OF 8-14C-MESCALINE IN FETAL AND MATERNAL BRAIN AND LIVER IN PREGNANT MOUSE.
155221 04-03
DYNAMICS OF DRUG DEPENDENCE: IMPLICATIONS OF A CONDITIONING THEORY FOR RESEARCH AND TREATMENT.
155239 04-17
BIOLOGICAL ASPECTS OF CROSS-NATIONAL DRUG STUDIES.
155266 04-17
DRUG DEVELOPMENTS IN EUROPE: DISCOVERY OF TETRACYCLIC PSYCHOTROPIC DRUGS.
155268 04-17
NEW DRUG DEVELOPMENT IN THE UNITED-KINGDOM.
155270 04-17
NEW DRUG DEVELOPMENTS IN GERMAN-SPEAKING COUNTRIES.
155271 04-17
NEW DRUG DEVELOPMENTS IN FRANCE AND FRENCH-SPEAKING COUNTRIES.
155272 04-17
NEW DRUG DEVELOPMENTS IN THE LATIN-AMERICAS (ARGENTINA, COSTA-RICA, MEXICO, AND PANAMA).
155273 04-17
PROBLEMS AND EXPERIENCES WITH TRIALS OUTSIDE THE UNITED-STATES: THE TIME LAG IN NEW DRUG AVAILABILITY.
155274 04-17
FOUR NEW DRUG DEVELOPMENTS FROM DENMARK, RUSSIA, AND WEST GERMANY.
155275 04-14
ALCOHOL HISTORY IN DRUG TREATMENT.
156740 04-11
A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03
CHRONIC INTRAVENOUS DRUG ADMINISTRATION IN THE PIGEON.
156827 04-06
EXPERIMENTS BEHIND BARS: DOCTORS, DRUG COMPANIES, AND PRISONERS.
156835 04-07
INTERACTION OF STRESS AND PSYCHOTOMIMETIC DRUG ACTION: POSSIBLE IMPLICATION FOR PSYCHOSIS.
157042 04-04
EFFECTS ON OFFSPRING BEHAVIOR OF PARENTAL EARLY DRUG EXPERIENCE AND CROSS-FOSTERING.
157043 04-04
DRUG THERAPY: NEUROLOGIC SYNDROMES ASSOCIATED WITH ANTIPSYCHOTIC DRUG USE.
158264 04-15

DRUG RESPONSES IN DIFFERENT ANXIETY STATES UNDER BENZODIAZEPINE TREATMENT. SOME MULTIVARIATE ANALYSES FOR THE EVALUATION OF RATING SCALE FOR DEPRESSION SCORES.
158285 04-14

PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09

THE CASE FOR REPORTING THE DRUG STATUS OF PATIENT SUBJECTS IN EXPERIMENTAL STUDIES OF SCHIZOPHRENIC PSYCHOPATHOLOGY.
159043 04-06

TARDIVE DYSKINESIA: A PERSISTENT NEUROLOGICAL SYNDROME ASSOCIATED WITH ANTIPSYCHOTIC DRUG USE.
159348 04-15

DRUG DISPOSITION IN THE FETUS AND NEWBORN INFANT.
159352 04-11

SKIN POTENTIAL ORIENTING RESPONSES IN DRUG TREATED AND NONDRUG TREATED DEPRESSED INPATIENTS.
159395 04-09

PATHOBIOLOGICAL MECHANISMS OF ANTIDEPRESSANT AND ANTIPSYCHOTIC DRUG TOXICITY. (PH.D. DISSERTATION).
159822 04-03

HOW ANTAGONISTIC CAN DOCTORS BIAS BE ON DRUG EFFECT? OXAZEPAM AS AN ANTIANXIETY AGENT.
160215 04-14

DRUG TREATMENT OF HYPERACTIVITY IN CHILDREN.
160694 04-14

HYPERPYREXIA FROM DRUG COMBINATIONS.
160965 04-15

A DISCRIMINATIVE STUDY OF THE ACTION OF A PSYCHOTROPIC DRUG BY THE USE OF THE B.P.R.S. CARDS.
161278 04-11

DRUG TREATMENT OF ANXIETY AND DEPRESSION IN DETOXIFIED ALCOHOLIC PATIENTS.
162170 04-11

DRUG DEFAULTING BY PATIENTS ON LONG-ACTING PHENOTHIAZINES.
162646 04-08

EFFECT OF LONG-TERM FENFLURAMINE TREATMENT ON DRUG METABOLISM IN RAT.
163632 04-05

SOME EFFECTS OF THE HALLUCINOGENIC DRUG 2,5 DIMETHOXY-4-METHYLAMPHETAMINE ON THE METABOLISM OF BIOGENIC AMINES IN THE RAT BRAIN.
163749 04-03

HALOPERIDOL IN THE TREATMENT OF NAUSEA AND VOMITING DUE TO CYTOTOXIC DRUG ADMINISTRATION.
164218 04-15

PHARMACOLOGY: DRUG ACTIONS AND REACTIONS.
164233 04-17

DRUG THERAPY: ANTICHOLINERGICS.
165463 04-15

REVIEW OF MEDICINE IN SPECIAL EDUCATION. DRUG RESEARCH: OUT OF SIGHT, OUT OF MIND.
166484 04-17

DEVELOPMENTS IN DRUG THERAPY.
166582 04-17

INTERACTIONS OF SEVERAL CANNABINOIDS WITH THE HEPATIC DRUG METABOLIZING SYSTEM.
166689 04-03

ON THE CENTRAL MEDIATION OF ANOREXIGENIC DRUG EFFECTS.
166690 04-03

CIRCADIAN RHYTHMS OF DRUG EFFECTIVENESS AND TOXICITY.
166719 04-13

EARLY CLINICAL DRUG EVALUATION UNITS REPORTS.
166878 04-07

DRUG INTERACTION WITH PSYCHOPHARMACEUTICALS.
166987 04-03

DRUG-INDUCED

DRUG-INDUCED REINSTATEMENT OF AMPHETAMINE SELF-ADMINISTRATION BEHAVIOUR IN MONKEYS.
154210 04-04

DRUG-INDUCED ATTENUATION OF ALCOHOL CONSUMPTION: A REVIEW AND EVALUATION OF CLAIMED, POTENTIAL OR CURRENT THERAPIES.
154690 04-11

MEDICAL DRUG-INDUCED MENTAL DISORDERS.
154984 04-15

DRUG-INDUCED EXTRAPYRAMIDAL SYMPTOMS. A COOPERATIVE STUDY.
156324 04-15

DRUG-INDUCED CHANGES OF STRIATAL CHOLINERGIC AND DOPAMINERGIC FUNCTIONS IN RATS WITH SPREADING DEPRESSION.
156797 04-03

A MODULATING EFFECT OF CHLORDIAZEPOXIDE ON DRUG-INDUCED PGO SPIKES IN THE CAT.
158293 04-03

ELECTROMYOGRAPHIC EVALUATION OF DRUG-INDUCED MUSCLE RELAXATION.
158296 04-11

EFFECTS OF DRUG-INDUCED BEHAVIOR CHANGES IN HYPERACTIVE CHILDREN ON MATERNAL ATTITUDE AND PERSONALITY. (PH.D. DISSERTATION).
159130 04-14

DRUG-INDUCED AGGRESSION.
161343 04-04

CREATIVE PERFORMANCE AND THE HALLUCINOGENIC DRUG-INDUCED CREATIVE EXPERIENCE.
162156 04-12

DRUG-INDUCED DYSTONIA-TARDA: TREATMENT WITH L-DOPA.
162361 04-15

A DEVICE FOR ANALYZING DRUG-INDUCED RESPONSES IN FREELY MOVING MICE.
165729 04-06

DRUG-INDUCED DISEASES.
165745 04-15

DRUGS

HALLUCINOGENIC DRUGS.
150040 04-17

THE INTERACTION OF DELTA9-TETRAHYDROCANNABINOL PRETREATMENT WITH VARIOUS SEDATIVE HYPNOTIC DRUGS.
150302 04-04

ACCUMULATION, STORAGE AND RELEASE OF ADRENERGIC NEURON BLOCKING AGENTS AND RELATED DRUGS BY HUMAN PLATELETS.
150316 04-03

DRUGS AND PUNISHED RESPONDING: III. PUNISHMENT INTENSITY AS A DETERMINANT OF DRUG EFFECT.
150322 04-04

EMOTIONALLY INDUCED CARDIOVASCULAR CHANGES IN MAN AS A MEANS FOR THE INVESTIGATION OF TRANQUILLIZING DRUGS.
150323 04-13

DOSAGE CONTROL OF DRUGS WITH LETHAL POTENCY FOR UNIVERSITY LEVEL PATIENTS.
150579 04-15

DRUGS, DOCTORS AND JUNKIES.
150614 04-17

PRESCRIPTION OF PSYCHOTROPIC DRUGS BY GENERAL PRACTITIONERS: 1. GENERAL.
150791 04-17

DRUG THERAPY: HYPNOTIC DRUGS.
150829 04-17

OBSERVATIONS ON THE USE OF LITHIUM SALTS IN ASSOCIATION WITH PSYCHOTROPIC DRUGS.
151265 04-09

NEW DRUGS IN THE TREATMENT OF PARKINSONISM.
151377 04-11

FACTORS INFLUENCING THE SUPPRESSANT EFFECTS OF TWO STIMULANT DRUGS ON THE GROWTH OF HYPERACTIVE CHILDREN.
151592 04-15

THE CENTRAL ACTION OF ANTIHYPERTENSIVE DRUGS, MEDIATED VIA CENTRAL ALPHA-RECEPTORS.
151626 04-13

RECENT ADVANCES IN THE TREATMENT OF PARKINSONISM WITH DRUGS.
151685 04-11

EFFECTS OF ESTROGEN AND PROGESTERONE ON BRAIN MONOAMINES: INTERACTIONS WITH PSYCHOTROPIC DRUGS.
152045 04-03

DOXEPIN WITH OTHER DRUGS.
152168 04-15

MODIFICATION OF THE CNS CYCLIC AMP RESPONSE BY DRUGS.
152664 04-03

EXPLORING WITH DRUGS: THE PHARMACOLOGIST IN PSYCHIATRY.
152722 04-13

COMPUTER ASSIGNMENT OF PSYCHOTROPIC DRUGS.
152899 04-17

STUDY OF THE EFFECT OF PSYCHOTROPIC DRUGS ON TENSION IN MOOD STATES.
153090 04-09

AVERSIVE CONDITIONING BY PSYCHOACTIVE DRUGS: EFFECTS OF MORPHINE, ALCOHOL AND CHLORDIAZEPOXIDE.
153107 04-04

NEUROMUSCULAR BLOCKING DRUGS AND THE HEART RATE RESPONSE TO DIRECT PREGANGLIONIC STIMULATION OF THE SYMPATHETICS AND PARASYMPATHETICS IN THE CAT.
153171 04-03

CLASSICAL AVERSIVE CONDITIONING IN CATS UNDER VARIOUS NEUROMUSCULAR BLOCKING DRUGS.
153217 04-04

PRESCRIPTION OF PSYCHOTROPIC DRUGS BY GENERAL PRACTITIONERS: 2. ANTIDEPRESSANTS.
153264 04-17

CONTROLLED EVALUATION OF INTRAVENOUS DRUGS IN THE SPECIFIC DESENSITIZATION OF PHOBIAS.
153609 04-10

OPTIMUM USE OF ANTIPSYCHOTIC DRUGS.
153795 04-08

STIMULATION OF SEROTONIN N-ACETYLTRANSFERASE IN PINEAL ORGAN CULTURE BY DRUGS. (UNPUBLISHED PAPER).
154364 04-03
PSYCHIATRIC CASE STUDIES: TREATMENT, DRUGS, AND OUTCOME.
154482 04-17
THE THERAPEUTIC FUTURE OF MIND-ALTERING DRUGS.
154830 04-17
DRUG DEVELOPMENTS IN EUROPE: DISCOVERY OF TETRACYCLIC PSYCHOTROPIC DRUGS.
155268 04-17
TRIALS WITH DRUGS OUTSIDE THE U.S.
155269 04-17
TWO ANTIANXIETY DRUGS: A PSYCHONEUROENDOCRINE STUDY.
155436 04-13
M.D.S CAUTIONED ON ANTIPARKINSON DRUGS.
155760 04-15
PSYCHOTROPIC DRUGS, DIABETES AND CHRONIC MENTAL PATIENTS.
155888 04-15
EFFECT OF ERGOT DRUGS ON CENTRAL CATECHOLAMINE NEURONS: EVIDENCE FOR A STIMULATION OF CENTRAL DOPAMINE NEURONS.
155903 04-03
RECENT ADVANCES IN PSYCHOTHERAPEUTIC DRUGS AND THEIR SIDE-EFFECTS: A SYMPOSIUM.
155994 04-15
THE INFLUENCE OF PSYCHOTROPIC DRUGS ON THE GENETIC CELL MATERIAL.
156569 04-15
ON THE USE OF ARMINE IN THE QUALITY OF PSYCHOSTIMULATING DRUGS IN SCHIZOPHRENIA.
156589 04-08
INHIBITION OF STIMULATED CEREBRAL RESPIRATION IN VITRO AND OXYGEN CONSUMPTION IN VIVO IN RATS TREATED BY CHOLINOLYTIC DRUGS.
156639 04-03
IN VITRO INHIBITORY EFFECTS OF NARCOTIC ANALGESICS AND OTHER PSYCHOTROPIC DRUGS ON THE ACTIVE UPTAKE OF NOREPINEPHRINE IN MOUSE BRAIN TISSUE.
157063 04-03
EFFECT OF DRUGS ON THE TRYPTAMINE CONTENT OF RAT TISSUES.
157109 04-03
DOPAMINERGIC NEURONS: EFFECT OF ANTIPSYCHOTIC DRUGS AND AMPHETAMINE ON SINGLE CELL ACTIVITY.
157111 04-03
EFFECTS OF CHOLINERGIC DRUGS ON PREY KILLING BY RODENTS.
157136 04-04
LOCALIZATION IN BRAIN PARTICULATE FRACTIONS OF NARCOTIC ANALGESIC DRUGS ADMINISTERED INTRACISTERNALLY TO RATS.
157185 04-03
IMPROVING SCHEDULING AND REDUCING COSTS OF PSYCHOTROPIC DRUGS FOR OUTPATIENTS.
157291 04-17
STERIC ASPECTS OF ADRENERGIC DRUGS XXII: RETENTION OF (_)- AND (-) 14C-NOREPINEPHRINE BY MOUSE HEART.
157302 04-01
ALTERATION OF ETHANOL INDUCED CNS DEPRESSION: INEFFECTIVENESS OF DRUGS THAT MODIFY CHOLINERGIC TRANSMISSION. (UNPUBLISHED PAPER).
158058 04-04
TREATING PROBLEM CHILDREN WITH STIMULANT DRUGS.
158175 04-14
RISKS VS. BENEFITS OF ANTIPSYCHOTIC DRUGS.
158176 04-15
CLINICAL PEARLS: OVERDOSE OF PSYCHOTROPIC DRUGS.
158261 04-15
EFFECTS OF BEHAVIORALLY ACTIVE DRUGS IN A CONFLICT PUNISHMENT PROCEDURE IN RATS.
158281 04-04
STUDY OF ANTIANXIETY EFFECTS OF DRUGS IN THE RAT, WITH A MULTIPLE PUNISHMENT AND REWARD SCHEDULE.
158282 04-04
ANTIANXIETY DRUGS IN CLINICAL PRACTICE.
158284 04-14
BEHAVIORAL AND PSYCHOSOMATIC EFFECTS OF BENZODIAZEPINES: INTERACTIONS WITH OTHER DRUGS.
158301 04-14
MORPHINE, PROPRANOLOL AND THEIR INTERACTION IN MONKEYS TRAINED TO SELF-ADMINISTER DRUGS. (UNPUBLISHED PAPER).
158321 04-04
PHARMACOLOGICAL STUDIES ON THE HYPOTHALAMUS (REPORT 7). CONDITIONING OF HYPOTHALAMIC BEHAVIORAL RESPONSES AND EFFECTS OF PSYCHOTROPIC DRUGS.
158488 04-04
PHARMACOLOGICAL STUDIES ON MECHANISM OF ANTIPARKINSONIAN DRUGS (REPORT 2): ELEVATION OF STRIATAL HOMOVANILLIC ACID CONTENT BY OXOTREMORINE AND ITS MODIFICATION BY ANTICHOLINERGICS.
158501 04-03
ELECTROPHYSIOLOGICAL STUDIES ON ACTION OF PSYCHOTROPIC DRUGS IN RELATION TO BRAIN MONOAMINES.
158505 04-03
EFFECTS OF PSYCHOTROPIC DRUGS ON SEGMENTAL SPINAL REFLEX AND SPINO-BULBO-SPINAL (SBS) REFLEX.
158509 04-03
ATTEMPT TO EVALUATE THE PHYSICAL DEPENDENCE LIABILITY OF PSYCHOTROPIC DRUGS IN MICE (2).
158513 04-03
HAZARDS IMPLICIT IN PRESCRIBING PSYCHOACTIVE DRUGS.
158625 04-17
THE PLACE OF ETHNOBOTANY IN THE ETHNOPHARMACOLOGIC SEARCH FOR PSYCHOTOMIMETIC DRUGS.
158626 04-17
PHYSICIAN CHARACTERISTICS AND ATTITUDES TOWARD LEGITIMATE USE OF PSYCHOTHERAPEUTIC DRUGS.
158645 04-17
THE REFLECTION OF EJECTING AND RETAINING CURRENTS IN THE TIME COURSE OF NEURONAL RESPONSES TO MICROELECTROPHORETICALLY APPLIED DRUGS.
158768 04-03
USES OF PSYCHOTHERAPEUTIC DRUGS.
159347 04-17
DRUGS IN STRESSED AND NONSTRESSED ANIMALS.
159397 04-06
DOPAMINE ANTAGONISM AND ANTISCHIZOPHRENIC POTENCY OF NEUROLEPTIC DRUGS.
159450 04-08
CLINICAL TOXICOLOGY VII. POISONING BY SALICYLATES, PARACETAMOL, TRICYCLIC ANTIDEPRESSANTS AND A MISCELLANY OF DRUGS.
159588 04-15
UNEXPECTED EFFECTS RELATED TO INTERACTIONS OF DRUGS IN PEDIATRIC USE.
160690 04-15
THE USE AND ABUSE OF THE PSYCHOTROPIC DRUGS.
160696 04-17
THE EFFECT OF FOCALLY ADMINISTERED DRUGS ON SELF-STIMULATION OF THE VENTRAL TEGMENTAL AREA IN RATS. (PH.D. DISSERTATION).
160896 04-04
THE EFFECTS OF CHOLINERGIC DRUGS ON OPERANT BEHAVIOUR OF THE RAT. (PH.D. DISSERTATION).
160910 04-04
PSYCHIATRIC COMPLICATIONS OF MEDICAL DRUGS.
160942 04-15
NONPHARMACOLOGICAL EFFECTS OF DRUGS AND THE PARANOID STATE.
161159 04-17
WEIGHING EVIDENCE THAT LINKS EPILEPSY DRUGS TO FETAL DEFECTS.
161357 04-15
INFLUENCE OF SOME PSYCHOACTIVE DRUGS ON MINERAL METABOLISM IN MAN.
161388 04-08
STUDIES ON THE EFFECT OF TRANQUILIZING DRUGS ON THE IMMUNE RESPONSE.
161389 04-05
CLINICAL JUDGMENT VS. MULTIVARIATE FORMULAE IN ASSIGNMENT OF PSYCHOTROPIC DRUGS.
161818 04-14
INFLUENCE OF ANTICHOLINERGIC ANTIPARKINSONIAN AGENTS ON THE EFFECTS OF NARCOANALGESIC DRUGS IN THE RAT.
162057 04-03
DRUGS AND PUNISHED RESPONDING II: D-AMPHETAMINE INDUCED INCREASES IN PUNISHED RESPONDING.
162325 04-04
PSYCHIATRIC COMPLICATIONS OF EVERYDAY DRUGS.
162382 04-17
EFFECT OF VARIOUS SEDATIVE DRUGS ON LEVELS OF CHOLINE AND ACETYLCHOLINE AND ON TURNOVER RATE OF ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
162398 04-03
PSYCHOTROPIC DRUGS: AGENTS OF HOPE OR DESPAIR.
163001 04-17
ARE PSYCHOTROPIC DRUGS BEING MISUSED?
163002 04-17
PSYCHOTROPIC DRUGS IN USE TODAY: THE ROLE OF DIAZEPAM IN MEDICAL PRACTICE.
163165 04-17
PSYCHIATRIC COMPLICATIONS OF MEDICAL DRUGS.
163221 04-17
PHOTOSENSITISATION DUE TO DRUGS.
163280 04-17
THE EFFECTS OF ANTIDEPRESSANT DRUGS ON PAIN RELIEF AND MOOD IN THE CHRONICALLY ILL: A DOUBLE-BLIND STUDY.
163331 04-11
CONVULSIONS ELICITED BY HANDLING: A SENSITIVE METHOD OF MEASURING CNS EXCITATION IN MICE TREATED WITH RESERPINE OR CONVULSANT DRUGS.
163748 04-03

DISSOCIATION OF TWO COMPONENTS OF RAT BEHAVIOR BY PSYCHOTROPIC DRUGS: UTILIZATION FOR STUDYING ANXIOLYTIC DRUGS.
163760 04-04
A COMPARISON OF THE EFFECTS OF D-AMPHETAMINE AND MORPHINE UPON THE LOCOMOTOR ACTIVITY OF MICE TREATED WITH DRUGS WHICH ALTER BRAIN CATECHOLAMINE CONTENT.
163769 04-04
MENTAL PATIENTS USED IN TESTING DRUGS.
165564 04-08
THE ACTIVATION OF PINEAL HYDROXYINDOLE-O-METHYLTRANSFERASE BY PSYCHOTOMIMETIC DRUGS.
165999 04-03
INTERACTIONS OF PSYCHOTROPIC DRUGS IN THE ELDERLY.
166019 04-13
THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: III. THE EFFECTS OF AMITRIPTYLINE.
166723 04-14
THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: II. THE EFFECTS OF RESERPINE.
166724 04-14
THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: I. METHODOLOGY AND THE EFFECTS OF PLACEBO.
166725 04-14
ANALYSIS OF AMPHETAMINES AND OTHER PSYCHOACTIVE DRUGS.
166901 04-06
A COMPARISON OF COMMON INTERATOMIC DISTANCES IN SEROTONIN AND SOME HALLUCINOGENIC DRUGS.
167042 04-01
PREDICTION OF THERAPEUTIC USES OF PSYCHOTHERAPEUTIC DRUGS FROM EXPERIENCES WITH NORMAL VOLUNTEERS.
167106 04-14
TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167108 04-17
DISCUSSION OF A SURVEY OF ACADEMIC AND INDUSTRIAL SCIENTISTS ON TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167109 04-17
THE USE OF DRUGS IN DEPRESSION: ITS THEORETICAL AND PRACTICAL BASIS.
167262 04-11

DRYNESS
MOUTH DRYNESS, A NOTABLE REACTION TO PSYCHOTROPIC THERAPY, AND ITS TREATMENT.
150646 04-15

DUAL
THE DUAL ACTION OF THIOTHIXENE.
162171 04-08

DUCT
APPLICATION OF PRINCIPLES OF STEADY-STATE KINETICS TO MEASURE ACETYLCHOLINE TURNOVER RATE IN RAT SALIVARY GLANDS: EFFECT OF DEAFFERENTATION AND DUCT LIGATION.
163763 04-03

DURATION
FIXED-INTERVAL SCHEDULE OF COCAINE REINFORCEMENT: EFFECT OF DOSE AND INFUSION DURATION.
155411 04-04
EFFECTS OF CHLORPROMAZINE AND DIAZEPAM ON OPERANT RESPONSE DURATION IN RATS.
158489 04-04
FLUPHENAZINE ENANTHATE AND FLUPHENAZINE DECANOATE: A COMPARISON OF THEIR DURATION OF ACTION AND MOTOR SIDE-EFFECTS.
161905 04-09

DYNAMICS
SINGLE DOSE EFFECT OF MARIHUANA SMOKE: BRONCHIAL DYNAMICS AND RESPIRATORY CENTER SENSITIVITY IN NORMAL SUBJECTS.
150620 04-13
DYNAMICS OF DRUG DEPENDENCE: IMPLICATIONS OF A CONDITIONING THEORY FOR RESEARCH AND TREATMENT.
155239 04-17
KINETICS AND DYNAMICS OF RESPONSE TO HALOPERIDOL IN ACUTE SCHIZOPHRENIA -- A LONGITUDINAL STUDY OF THE THERAPEUTIC PROCESS.
162869 04-08

DYSCONTROL
THE EPISODIC DYSCONTROL SYNDROME.
162363 04-09

DYSFUNCTION
ORAL MEDICATIONS FOR MINIMAL BRAIN DYSFUNCTION IN CHILDREN.
150550 04-11
GILLES-DE-LA-TOURETTES DISEASE AND MINIMAL BRAIN DYSFUNCTION: AMPHETAMINE ISOMERS REVEAL CATECHOLAMINE CORRELATES IN AN AFFECTED PATIENT.
153097 04-11

DYSKINESIA
TARDIVE DYSKINESIA: A PERSISTENT NEUROLOGICAL SYNDROME ASSOCIATED WITH ANTIPSYCHOTIC DRUG USE.
159348 04-15
METHYLPHENIDATE IN TARDIVE DYSKINESIA.
160824 04-13
MANAGEMENT OF TARDIVE DYSKINESIA WITH THIOPROPAZATE.
160825 04-13
PHYSOSTIGMINE IN TARDIVE DYSKINESIA IN THE ELDERLY.
166364 04-11

DYSKINESIAS
TARDIVE DYSKINESIAS FROM THE MAJOR TRANQUILIZERS.
163159 04-05

DYSPHORIAS
USE OF LEPTRIL IN THE TREATMENT OF DYSPHORIAS IN EPILEPTIC PATIENTS.
151810 04-11
PECULIARITIES OF THE TREATMENT OF EPILEPTIC DYSPHORIAS IN OUTPATIENT PRACTICE.
151811 04-11

DYSSYNERGIA
PROGRESSIVE CEREBELLAR DYSSYNERGIA: THE USE OF DIAZEPAM.
164699 04-11

DYSTONIA-TARDA
DRUG-INDUCED DYSTONIA-TARDA: TREATMENT WITH L-DOPA.
162361 04-15

EAE
THE RELEVANCE OF IMMUNOLOGIC STUDIES ON EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) TO CLINICAL INVESTIGATIONS ON MULTIPLE SCLEROSIS. (UNPUBLISHED PAPER).
152545 04-03

ECDEU
ANNUAL ECDEU MEETING -- ABRIDGED PROCEEDINGS.
166874 04-07

ECS
ECS PRODUCED DISRUPTION OR FACILITATION OF DISCRIMINATED ACTIVE AVOIDANCE PERFORMANCE IN RATS.
157094 04-03

EDUCATION
REVIEW OF MEDICINE IN SPECIAL EDUCATION. DRUG RESEARCH: OUT OF SIGHT, OUT OF MIND.
166484 04-17

EEG
EEG AND BEHAVIORAL EFFECTS OF NATURAL, SYNTHETIC AND BIOSYNTHETIC CANNABINOIDS.
158004 04-04
ATTENUATION OF THE MORPHINE EEG CONTINUUM FOLLOWING A REPEAT DOSE WITHIN 16 DAYS: DELAYED TOLERANCE IN THE RAT.
160633 04-03
VOLTAGE LATERALITY IN THE EEG OF PSYCHIATRIC PATIENTS.
162365 04-08
EEG, HEART RATE AND MOOD CHANGE (HIGH) AFTER CANNABIS.
163747 04-13
CLINICAL AND EEG INVESTIGATIONS WITH CI-579 AND CI-600 (QUANTITATIVE PHARMACOELECTROENCEPHALOGRAPHY AND SLEEP PRINTS).
166733 04-08

EFFECTIVENESS
CERTAIN PREDICTIONS ON THE EFFECTIVENESS OF L-DOPA ON PARKINSONISM.
156778 04-11
COMPARATIVE EFFECTIVENESS OF NATURAL SLEEP AND METHOHEXITAL: PROVOCATIVE TESTS IN ELECTROENCEPHALOGRAPHY.
161331 04-11
CIRCADIAN RHYTHMS OF DRUG EFFECTIVENESS AND TOXICITY.
166719 04-13

EFFLUX
EFFECT OF BENZODIAZEPINES ON UPTAKE AND EFFLUX OF SEROTONIN IN HUMAN BLOOD PLATELETS IN VITRO.
160473 04-13

EJACULATIO-PRAECOX
EJACULATIO-PRAECOX: TREATMENT WITH THE MINI-PILL.
160975 04-14

EJECTING
THE REFLECTION OF EJECTING AND RETAINING CURRENTS IN THE TIME COURSE OF NEURONAL RESPONSES TO MICROELECTROPHORETICALLY APPLIED DRUGS.
158768 04-03

ELDERLY
PARANOID DISORDERS IN THE ELDERLY.
150845 04-09
LEVODOPA FOR PARKINSONISM IN ELDERLY AND DEMENTED PATIENTS.
153263 04-11
BARBITURATE TOLERANCE AND PSYCHOLOGICAL FUNCTIONING IN ELDERLY DEPRESSED PATIENTS.
162639 04-09
INTERACTIONS OF PSYCHOTROPIC DRUGS IN THE ELDERLY.
166019 04-13
PHYSOSTIGMINE IN TARDIVE DYSKINESIA IN THE ELDERLY.
166364 04-11

ELECTRICAL
CHEMICAL AND ELECTRICAL TREATMENT OF AGGRESSION.
155243 04-04

EFFECTS OF CHRONIC ADMINISTRATION OF BENZODIAZEPINES ON EPILEPTIC SEIZURES AND BRAIN ELECTRICAL ACTIVITY IN PAPIO-PAPIO.
158290 04-03

THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03

ELECTRICALLY

EFFECT OF XANTHINOL NICOTINATE ON METABOLISM OF BRAIN CYCLIC AMP AND METABOLISM IN ELECTRICALLY STIMULATED CEREBRAL TISSUE.
158511 04-03

ELECTROCONVULSIVE

MEMORY TRACES: EXPERIMENTAL SEPARATION BY CYCLOHEXIMIDE AND ELECTROCONVULSIVE SHOCK.
150312 04-04

ELECTRODES

INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04

ELECTROENCEPHALOGRAM

EFFECTS OF L-TRYPTOPHAN, L-3,4,DIHYDROXYPHENYLALANINE AND TRANYLCYPROMINE ON THE ELECTROENCEPHALOGRAM AND ON PHOTICALLY INDUCED EPILEPSY IN THE BABOON, PAPIO-PAPIO.
152044 04-03

LONG-TERM EFFECTS OF MORPHINE ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR OF THE RAT.
153103 04-03

INFLUENCE OF LITHIUM CARBONATE ON THE ELECTROENCEPHALOGRAM.
158330 04-13

AGONISTIC PROPERTIES OF NARCOTIC ANALGESICS AND ANTAGONISTS ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR IN THE RAT AND THEIR REVERSAL BY NALOXONE.
160634 04-03

ELECTROENCEPHALOGRAPHIC

THE EFFECTS OF 6-HYDROXYDOPAMINE, DOPAMINE AND DL-NOREPINEPHRINE ON FOOD INTAKE AND WATER CONSUMPTION, SELF-STIMULATION, TEMPERATURE AND ELECTROENCEPHALOGRAPHIC ACTIVITY IN THE RAT.
150352 04-04

DELTA9-TETRAHYDROCANNABINOL: ELECTROENCEPHALOGRAPHIC CHANGES AND AUTONOMIC RESPONSES IN THE RABBIT.
154970 04-03

CLINICAL PHARMACOLOGY OF SLEEP: A CRITICAL REVIEW OF ALL-NIGHT ELECTROENCEPHALOGRAPHIC STUDIES.
166734 04-08

ELECTROENCEPHALOGRAPHY

COMPARATIVE EFFECTIVENESS OF NATURAL SLEEP AND METHOHEXITAL: PROVOCATIVE TESTS IN ELECTROENCEPHALOGRAPHY.
161331 04-11

ELECTROGRAPHIC

ELECTROGRAPHIC STUDIES OF A NEW VOLATILE ANESTHETIC AGENT: ENFLURANE (ETHRANE).
152037 04-03

ELECTROMYOGRAPHIC

ELECTROMYOGRAPHIC EVALUATION OF DRUG-INDUCED MUSCLE RELAXATION.
158296 04-11

ELECTRON

DETERMINATION OF A BENZOTHIAZEPIN-2-ONE IN BLOOD BY GLC ELECTRON CAPTURE DETECTION.
150413 04-06

ELECTROPHYSIOLOGICAL

TREATMENT OF PARKINSONISM WITH L-DOPA AND DECARBOXYLASE INHIBITOR: AN ELECTROPHYSIOLOGICAL STUDY.
151688 04-11

ELECTROPHYSIOLOGICAL ANALYSIS OF DIENCEPHALO - AMYGDALOID INTERRELATIONS.
152101 04-03

COMPARISON OF THE EFFECT OF DELTA9-TETRAHYDROCANNABINOL, 11-HYDROXY-DELTA9-TETRAHYDROCANNABINOL, AND ETHANOL ON THE ELECTROPHYSIOLOGICAL ACTIVITY OF THE GIANT AXON OF THE SQUID.
156816 04-03

ELECTROPHYSIOLOGICAL STUDIES ON ACTION OF PSYCHOTROPIC DRUGS IN RELATION TO BRAIN MONOAMINES.
158505 04-03

ELECTROSHOCK

DRUG AND ELECTROSHOCK THERAPY.
151512 04-11

THE ROLE OF BIOGENIC AMINES IN THE RESERPINE INDUCED ALTERATION OF MINIMAL ELECTROSHOCK SEIZURE THRESHOLDS IN THE MOUSE.
160639 04-03

EFFECTS OF L-DOPA AND L-3-METHOXYTYROSINE ON D-METHAMPHETAMINE INDUCED MOTOR ACTIVITY AND SEIZURES INDUCED BY ELECTROSHOCK (37475).
162046 04-03

ELENIUM

PHARMACOLOGICAL STUDIES CONCERNING THE SIMULTANEOUS USE OF ELENIUM AND ETHYL ALCOHOL.
151385 04-03

ELEVATION

PHARMACOLOGICAL STUDIES ON MECHANISM OF ANTIPARKINSONIAN DRUGS (REPORT 2): ELEVATION OF STRIATAL HOMOVANILLIC ACID CONTENT BY OXOTREMORINE AND ITS MODIFICATION BY ANTICHOLINERGICS.
158501 04-03

ELEVATION OF LIDOCAINE SEIZURE THRESHOLD BY GALLAMINE.
163313 04-03

ELICITATION

CHARACTERIZATION OF CENTRAL ANGIOTENSIN II RECEPTORS INVOLVED IN THE ELICITATION OF DRINKING IN THE RAT.
162890 04-03

ELIMINATION

ELIMINATION KINETICS OF AMOBARBITAL IN MOTHERS AND THEIR NEWBORN INFANTS.
151163 04-13

BILIARY AND URINARY ELIMINATION OF METHADONE AND ITS METABOLITES IN THE RAT.
152098 04-03

EFFECT OF PHENOBARBITAL INDUCTION ON GALACTOSE ELIMINATION CAPACITY IN THE RAT.
160799 04-03

INCREASED BLOOD ETHANOL ELIMINATION IN RATS TREATED WITH HALOTHANE.
165995 04-03

EMBRYO

EMBRYO FETOTOXIC EFFECT OF METHYLMERCURIC CHLORIDE IN RATS AND MICE.
165730 04-05

THE EFFECT OF GEROVITAL-H3 ON THE GROWTH RATE OF AGED MOUSE EMBRYO FIBROBLASTS AND ON THE PATHOGENESIS INDUCED BY A RNA C-TYPE VIRUS.
166387 04-03

EMOTIONAL

MANAGEMENT OF EMOTIONAL DISTURBANCES IN GERIATRIC PATIENTS.
152031 04-11

EMOTIONALLY

EMOTIONALLY INDUCED CARDIOVASCULAR CHANGES IN MAN AS A MEANS FOR THE INVESTIGATION OF TRANQUILLIZING DRUGS.
150323 04-13

DISRUPTION OF DISSOCIATED LEARNING IN A DISCRIMINATION PARADIGM BY EMOTIONALLY IMPORTANT STIMULI.
157044 04-04

EMPIRICISM

POLYPHARMACY IN PSYCHIATRY: EMPIRICISM, EFFICACY, AND RATIONALE.
153796 04-17

ENANTHATE

THE LONG-TERM EFFECT OF PERPHENAZINE ENANTHATE ON THE RAT BRAIN. SOME METABOLIC AND ANATOMICAL OBSERVATIONS.
150668 04-03

RIGIDITY, HYPERPYREXIA AND COMA FOLLOWING FLUPHENAZINE ENANTHATE.
150669 04-15

FLUPHENAZINE ENANTHATE AND FLUPHENAZINE DECANOATE: A COMPARISON OF THEIR DURATION OF ACTION AND MOTOR SIDE-EFFECTS.
161905 04-09

OUTPATIENT MANAGEMENT OF CHRONIC SCHIZOPHRENICS WITH FLUPHENAZINE ENANTHATE (PROLIXIN ENANTHATE): A CLINICAL EVALUATION.
164217 04-08

ENCEPHALOMYELITIS

THE RELEVANCE OF IMMUNOLOGIC STUDIES ON EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) TO CLINICAL INVESTIGATIONS ON MULTIPLE SCLEROSIS. (UNPUBLISHED PAPER).
152545 04-03

ENCEPHALOPATHY

THIORIDAZINE TOXICITY: AGRANULOCYTOSIS AND HEPATITIS WITH ENCEPHALOPATHY.
150843 04-15

TOXIC ENCEPHALOPATHY FOLLOWING LONG-TERM ADMINISTRATION OF PHENMETRAZINE.
151376 04-15

ENCEPHALOPATHY IN ACUTE LEUKEMIA ASSOCIATED WITH METHOTREXATE THERAPY.
152036 04-15

ENDOCRINE

ENDOCRINE EXOPHTHALMOS DURING LITHIUM THERAPY OF MANIC-DEPRESSIVE DISEASE.
155366 04-09

EFFECTS OF NARCOTICS ON ENDOCRINE FUNCTION.
160749 04-13

ENDOGENOUS
LITHIUM CARBONATE THERAPY IN ENDOGENOUS DEPRESSION.
150746 04-09
USEFULNESS OF COMBINED PHARMACOLOGICAL TREATMENT IN ENDOGENOUS DEPRESSIVE SYNDROMES.
150748 04-09
ABNORMAL O-METHYLATED DOPAMINE METABOLITES: THE ENDOGENOUS TOXINS OF SCHIZOPHRENIA OR PARKINSONISM
155905 04-13

ENDURANCE
THE EFFECT OF PROLONGED LITHIUM ADMINISTRATION ON ACTIVITY, REACTIVITY, AND ENDURANCE IN THE RAT.
150324 04-04
EFFECT OF AMPHETAMINE ON THE SWIMMING ENDURANCE OF RATS.
160641 04-04

ENFLURANE
ELECTROGRAPHIC STUDIES OF A NEW VOLATILE ANESTHETIC AGENT: ENFLURANE (ETHRANE).
152037 04-03

ENHANCEMENT
ENHANCEMENT OF BRAIN L-DOPA CONCENTRATION WITH ALPHA-CHYMOTRYPSIN.
152870 04-03
TRH: ENHANCEMENT OF DOPA ACTIVITY IN NORMAL INTACT, HYPOPHYSECTOMIZED AND THYROIDECTOMIZED ANIMALS.
155252 04-03

ENTRY
ENTRY AND EXIT FROM TREATMENT: SOME CONSEQUENCES OF PRETREATMENT EXPERIENCE FOR TREATMENT RESPONSE.
160218 04-17

ENTUMINE-CHLORO-2-11-DIBENZOTHIAZEPNE
EVALUATION OF THE THERAPEUTIC SPECTRUM OF ENTUMINE-CHLORO-2-11-DIBENZOTHIAZEPINE. STUDY BASED ON 50 CLINICAL CASES OBSERVED.
151305 04-07

ENURESIS
ENURESIS AGAIN.
151046 04-11
TREATMENT OF ENURESIS.
156012 04-07
RAPIDITY OF RESPONSE TO THE TREATMENT OF ENURESIS.
158012 04-13
HUMAN CHORIONIC GONADOTROPHIN (PREGNYL) IN THE TREATMENT OF NOCTURNAL ENURESIS.
158013 04-13

ENVIRONMENT
THE EFFECTS OF CHANGES IN IONIC ENVIRONMENT AND MODIFICATION OF ADRENERGIC FUNCTION ON THE VASCULAR RESPONSES TO SYMPATHOMIMETIC AMINES.
158769 04-03

ENVIRONMENTAL
DELTA9-TETRAHYDROCANNABINOL AND ETHANOL: DIFFERENTIAL EFFECTS ON SYMPATHETIC ACTIVITY IN DIFFERING ENVIRONMENTAL SETTING.
154261 04-03

ENZYME
USE OF ORAL DDT IN THREE HUMAN BARBITURATE INTOXICATIONS: HEPATIC ENZYME INDUCTION BY RECIPROCAL DETOXICANTS.
155205 04-15
A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03
A DIMETHYLTRYPTAMINE FORMING ENZYME IN HUMAN BLOOD.
161892 04-17

ENZYMES
STUDIES OF ENZYMES AND MODULATORS IN SHOCK INDUCED FIGHTING.
155245 04-04
THE EFFECT OF THE CONVULSANT 3-MERCAPTOPROPIONIC ACID ON ENZYMES OF THE GAMMA-AMINOBUTYRATE SYSTEM IN THE RAT CEREBRAL CORTEX.
161378 04-03

ENZYMIC
ANIMAL MODELS FOR AN ENZYMIC BLOOD-BRAIN BARRIER MECHANISM FOR THERAPEUTICALLY ADMINISTERED L-DOPA.
159566 04-03

EPILEPSY
CURRENT STATUS OF CHEMOTHERAPY OF EPILEPSY.
151011 04-11
CLASSIFICATION OF EPILEPSY FROM A THERAPEUTIC ASPECT.
151012 04-11
SOME DATA ON TEGRETOL THERAPY FOR PATIENTS WITH EPILEPSY.
151807 04-11
EFFECTS OF L-TRYPTOPHAN, L-3,4,DIHYDROXYPHENYLALANINE AND TRANYLCYPROMINE ON THE ELECTROENCEPHALOGRAM AND ON PHOTICALLY INDUCED EPILEPSY IN THE BABOON, PAPIO-PAPIO.
152044 04-03
INFLUENCE OF LITHIUM CARBONATE ON PATIENTS WITH TEMPORAL EPILEPSY.
153614 04-11
SERUM CONCENTRATIONS OF DIAZEPAM IN SUBJECTS WITH EPILEPSY.
158152 04-11
HIPPOCAMPAL EPILEPSY PRODUCED BY OUABAIN: STUDIES OF CEREBRAL CIRCULATION AND IONIC METABOLISM.
160649 04-03
WEIGHING EVIDENCE THAT LINKS EPILEPSY DRUGS TO FETAL DEFECTS.
161357 04-15
EPILEPSY IN INHERITED MENTAL AND MOTOR DISORDERS.
165193 04-13

EPILEPTIC
COMPARATIVE DATA FROM A STUDY OF THE METABOLISM OF BIOGENIC AMINES OF EPILEPTIC PATIENTS IN A PSYCHOTIC STATE.
151803 04-13
ON CLINICOIMMUNOLOGIC CORRELATIONS IN THE EVALUATION OF REMISSIONS IN PATIENTS WITH DELAYED EPILEPTIC PSYCHOSES.
151805 04-11
PECULIARITIES OF THE TREATMENT OF EPILEPTIC PATIENTS WITH PSYCHOMOTOR PAROXYSMS.
151806 04-11
USE OF LEPTRIL IN THE TREATMENT OF DYSPHORIAS IN EPILEPTIC PATIENTS.
151810 04-11
PECULIARITIES OF THE TREATMENT OF EPILEPTIC DYSPHORIAS IN OUTPATIENT PRACTICE.
151811 04-11
BENZONAL IN THE TREATMENT OF EPILEPTIC ATTACKS IN CHILDREN.
156566 04-11
EFFECTS OF CHRONIC ADMINISTRATION OF BENZODIAZEPINES ON EPILEPTIC SEIZURES AND BRAIN ELECTRICAL ACTIVITY IN PAPIO-PAPIO.
158290 04-03

EPILEPTICS
KETAMINE ANESTHESIA IN BRAIN-DAMAGED EPILEPTICS.
152131 04-13

EPILEPTIFORM
THE EFFECTS OF SPREADING DEPRESSION ON PENICILLIN INDUCED EPILEPTIFORM ACTIVITY IN RAT BRAIN.
152438 04-05

EPINEPHRINE
ADRENERGIC RECEPTOR ROLES IN EPINEPHRINE REVERSAL BY CHLORPROMAZINE. (PH.D. DISSERTATION).
165680 04-03

EPISODES
LITHIUM CARBONATE AND IMIPRAMINE IN PREVENTION OF AFFECTIVE EPISODES.
159778 04-09

EPISODIC
THE EPISODIC DYSCONTROL SYNDROME.
162363 04-09

EPITHELIAL
THE EFFECT OF CHOLERA TOXIN ON THE PHOSPHORYLATION OF PROTEIN IN EPITHELIAL CELLS AND THEIR BRUSH BORDERS.
156879 04-03

EQUILIBRIA
AN EXAMINATION OF ACID BASE EQUILIBRIA OF 1,4 BENZODIAZEPINES BY SPECTROPHOTOMETRY.
155902 04-16

ERGOT
EFFECT OF ERGOT DRUGS ON CENTRAL CATECHOLAMINE NEURONS: EVIDENCE FOR A STIMULATION OF CENTRAL DOPAMINE NEURONS.
155903 04-03

ERYTHEMA
DRUG ALLERGY TO THIOXANTHENE, MANIFESTED BY THE MORPHOLOGICAL PICTURE OF ERYTHEMA EXSUDATIVUM MULTIFORME, AS A RESULT OF TAKING CLOPENTHIXOL.
152089 04-15

ERYTHROCYTE
THE PREDICTION OF BRAIN LITHIUM CONCENTRATIONS FROM PLASMA OR ERYTHROCYTE MEASURES.
161731 04-03

ESERINE
THE EFFECTS OF ATROPINE AND ESERINE ON SPATIAL DISCRIMINATION IN C57BL/10 MICE. (PH.D. DISSERTATION).
163132 04-04

ESTERS
NEW COMPOUNDS: SYNTHESIS OF ALKYL ESTERS OF D,L-DOPA.
150417 04-01

ESTIMATION
CANNABIS AND ALCOHOL: EFFECTS ON ESTIMATION OF TIME AND DISTANCE.
163777 04-14

ESTIMATION OF BRAIN AMINE METABOLISM IN AFFECTIVE ILLNESS: CEREBROSPINAL FLUID STUDIES UTILIZING PROBENECID.
164871 04-11

ESTROGEN
EFFECTS OF ESTROGEN AND PROGESTERONE ON BRAIN MONOAMINES: INTERACTIONS WITH PSYCHOTROPIC DRUGS.
152045 04-03
ESTROGEN IN TREATMENT OF THE MALE CLIMACTERIC.
163216 04-11

ETHANOL
DELTA9-TETRAHYDROCANNABINOL AND ETHANOL: DIFFERENTIAL EFFECTS ON SYMPATHETIC ACTIVITY IN DIFFERING ENVIRONMENTAL SETTING.
154261 04-03
ON THE USE OF ETHANOL AS A SCAVENGER IN STORING LABELLED DOPA AND 5-HYDROXYTRYPTAMINE IN AQUEOUS SOLUTIONS.
156806 04-06
COMPARISON OF THE EFFECT OF DELTA9-TETRAHYDROCANNABINOL, 11-HYDROXY-DELTA9-TETRAHYDROCANNABINOL, AND ETHANOL ON THE ELECTROPHYSIOLOGICAL ACTIVITY OF THE GIANT AXON OF THE SQUID.
156816 04-03
ALTERATION OF CORTICAL AND RETICULAR ACETYLCHOLINE RELEASE BY ETHANOL IN VIVO.
158054 04-03
ALTERATION OF ETHANOL INDUCED CNS DEPRESSION: INEFFECTIVENESS OF DRUGS THAT MODIFY CHOLINERGIC TRANSMISSION. (UNPUBLISHED PAPER).
158058 04-04
EFFECTS OF ETHANOL ON CEREBRAL CORTICAL NEURONS: INTERACTIONS WITH SOME PUTATIVE TRANSMITTERS.
158773 04-03
EFFECTS OF DIETHYLDITHIOCARBAMATE AND ETHANOL ON THE IN VIVO METABOLISM AND PHARMACOKINETICS OF AMPHETAMINE IN THE RAT.
158775 04-03
FACTORS INVOLVED IN ETHANOL NARCOSIS: ANALYSIS IN MICE OF THREE INBRED STRAINS.
159567 04-03
ETHANOL AND ACETALDEHYDE METABOLISM IN RAT STRAINS GENETICALLY SELECTED FOR THEIR ETHANOL PREFERENCE.
160542 04-03
CENTRAL NEUROTRANSMITTER EFFECTS OF ETHANOL.
165634 04-03
INCREASED BLOOD ETHANOL ELIMINATION IN RATS TREATED WITH HALOTHANE.
165995 04-03

ETHER
FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION.
150424 04-03
THE EFFECT OF HEXAFLUORODIETHYL ETHER (FLUROTHYL) ON THE METABOLISM OF RAT BRAIN AMINO ACIDS LABELLED BY (U-14C)GLUCOSE.
160767 04-03
POTENTIATING EFFECT OF CHLORPROMAZINE ON GLYCERYL GUAIACOLATE ETHER INDUCED HEMOLYSIS OF RAT, DOG AND HUMAN BLOOD IN VITRO.
166790 04-13

ETHNOBOTANY
THE PLACE OF ETHNOBOTANY IN THE ETHNOPHARMACOLOGIC SEARCH FOR PSYCHOTOMIMETIC DRUGS.
158626 04-17

ETHNOPHARMACOLOGIC
THE PLACE OF ETHNOBOTANY IN THE ETHNOPHARMACOLOGIC SEARCH FOR PSYCHOTOMIMETIC DRUGS.
158626 04-17

ETHOLOGICAL
NEUROCHEMICAL AND BEHAVIORAL BASES OF ETHOLOGICAL AGGRESSION.
155242 04-03

ETHOSUXIMIDE
BIOCHEMICAL EFFECTS OF THE ANTICONVULSANTS TRIMETHADIONE, ETHOSUXIMIDE, AND CHLORDIAZEPOXIDE IN RAT BRAIN.
152087 04-03

ETHRANE
ELECTROGRAPHIC STUDIES OF A NEW VOLATILE ANESTHETIC AGENT: ENFLURANE (ETHRANE).
152037 04-03

ETHYL
PHARMACOLOGICAL STUDIES CONCERNING THE SIMULTANEOUS USE OF ELENIUM AND ETHYL ALCOHOL.
151385 04-03

ETIFOXINE
THE EFFECTS OF A SINGLE ADMINISTRATION OF ETIFOXINE ON SEVERAL PSYCHOLOGICAL TESTS.
150672 04-07

EUROPE
DRUG DEVELOPMENTS IN EUROPE: DISCOVERY OF TETRACYCLIC PSYCHOTROPIC DRUGS.
155268 04-17

EVALUATE
ATTEMPT TO EVALUATE THE PHYSICAL DEPENDENCE LIABILITY OF PSYCHOTROPIC DRUGS IN MICE (2).
158513 04-03

EVALUATED
SIDE-EFFECTS OF HYPOTENSIVE AGENTS EVALUATED BY A SELF-ADMINISTERED QUESTIONNAIRE.
162720 04-13
SIGNIFICANCE OF INFORMATION ON PATIENTS AND PERSONNEL EVALUATED AFTER 5000 SERUM LITHIUM VALUES.
166983 04-17

EVALUATION
A SINGLE-BLIND EVALUATION OF THIOTHIXENE WITH OUTPATIENT SCHIZOPHRENIC CHILDREN.
150434 04-08
CLINICAL EVALUATION OF TWO PROPOSED ANTIDEPRESSANTS.
150834 04-07
EVALUATION OF THE THERAPEUTIC SPECTRUM OF ENTUMINE-CHLORO-2-11-DIBENZOTHIAZEPINE. STUDY BASED ON 50 CLINICAL CASES OBSERVED.
151305 04-07
ON CLINICOIMMUNOLOGIC CORRELATIONS IN THE EVALUATION OF REMISSIONS IN PATIENTS WITH DELAYED EPILEPTIC PSYCHOSES.
151805 04-11
TRICYCLIC ANTIDEPRESSANTS AND LIMB REDUCTION DEFORMITIES: A FURTHER COMMUNICATION FROM THE AUSTRALIAN DRUG EVALUATION COMMITTEE.
151932 04-15
CONTROLLED EVALUATION OF INTRAVENOUS DRUGS IN THE SPECIFIC DESENSITIZATION OF PHOBIAS.
153609 04-10
DRUG-INDUCED ATTENUATION OF ALCOHOL CONSUMPTION: A REVIEW AND EVALUATION OF CLAIMED, POTENTIAL OR CURRENT THERAPIES.
154690 04-11
CLINICAL EVALUATION OF IMIPRAMINE-N-OXIDE (IPNO) IN THE TREATMENT OF DEPRESSIVE STATES.
154979 04-09
POSITIVE OUTCOME IN PSYCHIATRIC CRISIS: EVALUATION OF THIORIDAZINE CONCENTRATE IN AN INTENSIVE, SHORT-TERM PSYCHIATRIC PROGRAM.
155793 04-10
OBESITY DEPRESSION: CLINICAL EVALUATION WITH A NEW ANOREXIGENIC AGENT.
155886 04-10
AN EVALUATION OF TIME-DEPENDENT CHANGES IN SUSCEPTIBILITY OF MICE TO PENTOBARBITAL INJECTION.
156809 04-04
PHARMACOLOGICAL EVALUATION OF MEDICINAL PLANTS FROM WESTERN SAMOA.
157300 04-17
DRUG RESPONSES IN DIFFERENT ANXIETY STATES UNDER BENZODIAZEPINE TREATMENT. SOME MULTIVARIATE ANALYSES FOR THE EVALUATION OF RATING SCALE FOR DEPRESSION SCORES.
158285 04-14
ELECTROMYOGRAPHIC EVALUATION OF DRUG-INDUCED MUSCLE RELAXATION.
158296 04-11
CONTROLLED EVALUATION OF FLURAZEPAM HYDROCHLORIDE, A NEW NONBARBITURATE HYPNOTIC.
159473 04-07
A CONTROLLED EVALUATION OF PYROVALERONE IN CHRONICALLY FATIGUED VOLUNTEERS.
160217 04-14
AN EVALUATION OF CONTINUATION THERAPY WITH TRICYCLIC ANTIDEPRESSANTS IN DEPRESSIVE ILLNESS.
162636 04-09
COMPARATIVE EVALUATION OF INJECTIBLE CHLORPROMAZINE AND PIPERACETAZINE.
163332 04-08
LOXAPINE: A SIX-MONTH EVALUATION IN SEVERELY ILL SCHIZOPHRENIC PATIENTS.
163680 04-08
OUTPATIENT MANAGEMENT OF CHRONIC SCHIZOPHRENICS WITH FLUPHENAZINE ENANTHATE (PROLIXIN ENANTHATE): A CLINICAL EVALUATION.
164217 04-08
EARLY CLINICAL DRUG EVALUATION UNITS REPORTS.
166878 04-07

EVIDENCE
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) AND CHLORDIAZEPOXIDE (CDP) ON STATE-DEPENDENT LEARNING: EVIDENCE FOR ASYMMETRICAL DISSOCIATION.
150301 04-04

FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION.
150424 04-03

EFFECT OF ERGOT DRUGS ON CENTRAL CATECHOLAMINE NEURONS: EVIDENCE FOR A STIMULATION OF CENTRAL DOPAMINE NEURONS.
155903 04-03

GROWTH AND BEHAVIORAL CHANGES IN DEVELOPING RATS TREATED INTRACISTERNALLY WITH 6-HYDROXYDOPAMINE: EVIDENCE FOR INVOLVEMENT OF BRAIN DOPAMINE.
157117 04-03

EVIDENCE FOR DEGENERATION OF SYMPATHETIC NERVE TERMINALS CAUSED BY THE ORTHO-QUINONES AND PARA-QUINONES OF 6-HYDROXYDOPAMINE.
157178 04-03

FURTHER EVIDENCE IN SUPPORT OF A COMMON ADRENERGIC MECHANISM FOR THE FACILITATORY ACTION ON LEARNING OF AMPHETAMINE AND NICOTINE IN RATS.
158772 04-04

EVIDENCE FOR THE METHYLATION OF APOMORPHINE BY CATECHOL-O-METHYLTRANSFERASE IN VIVO AND IN VITRO.
160545 04-03

WEIGHING EVIDENCE THAT LINKS EPILEPSY DRUGS TO FETAL DEFECTS.
161357 04-15

EVIDENCE FOR NONINVOLVEMENT OF CENTRAL CATECHOLAMINES IN COPPER ACETATE INDUCED OVULATION.
163797 04-03

EVIDENCE FOR CATECHOLAMINE INVOLVEMENT IN THE SUPPRESSION OF LOCOMOTOR ACTIVITY DUE TO HYPOXIA.
163802 04-03

EVIDENCE FOR THE BIOGENIC FORMATION OF AMPHETAMINE DERIVATIVES FROM COMPONENTS OF NUTMEG.
165997 04-01

EVIDENT

EFFECTS OF INTRACEREBRAL INJECTIONS OF 5,6 DIHYDROXYTRYPTAMINE ON CENTRAL MONOAMINE NEURONS: EVIDENT FOR SELECTIVE DEGENERATION OF CENTRAL 5-HYDROXYTRYPTAMINE NEURONS.
162894 04-03

EVOKED

EFFECT OF TRICYCLIC ANTIDEPRESSANTS ON THE SOMATOSENSORY EVOKED POTENTIAL IN MAN.
150349 04-13

EFFECTS OF LITHIUM AND AMITRIPTYLINE THERAPY ON SOMATOSENSORY EVOKED RESPONSE EXCITABILITY MEASUREMENTS.
153101 04-13

EXAMINATION

AN EXAMINATION OF ACID BASE EQUILIBRIA OF 1,4 BENZODIAZEPINES BY SPECTROPHOTOMETRY.
155902 04-16

EXCESSIVE

EXCESSIVE REACTION TO METHAQUALONE HCL DURING BIOAVAILABILITY STUDY.
166735 04-15

EXCITABILITY

EFFECTS OF LITHIUM AND AMITRIPTYLINE THERAPY ON SOMATOSENSORY EVOKED RESPONSE EXCITABILITY MEASUREMENTS.
153101 04-13

EXCITATION

BEHAVIOURAL AND PHARMACOLOGICAL STUDIES ON MORPHINE INDUCED EXCITATION OF RATS. POSSIBLE RELATION TO BRAIN CATECHOLAMINES.
150667 04-04

THE EXCITATION OF NEURONS BY NORADRENALINE.
156758 04-03

CONVULSIONS ELICITED BY HANDLING: A SENSITIVE METHOD OF MEASURING CNS EXCITATION IN MICE TREATED WITH RESERPINE OR CONVULSANT DRUGS.
163748 04-03

EXCITATIONS

NORADRENALINE EXCITATIONS: NEURONAL, NOT VASCULAR.
162440 04-03

EXCITATORY

MESCALINE: NO TOLERANCE TO EXCITATORY EFFECTS.
166067 04-04

DISSOCIATION OF EXCITATORY AND HYPERPYREXIC EFFECTS OF LSD IN RATS TREATED WITH ALPHA-METHYLTYROSINE.
166732 04-03

EXCRETION

URINARY EXCRETION OF MONOAMINES AND METABOLITES IN PATIENTS DEPENDENT ON AND WITHDRAWN FROM BARBITURATES.
150293 04-13

LITHIUM EXCRETION AND THERAPEUTIC RESPONSE.
150314 04-13

THE EXCRETION OF L-DOPA METABOLITES AT DIFFERENT HOURS OF THE DAY.
150836 04-13

EXCRETION AND METABOLISM OF RESERPINE IN RENAL FAILURE.
151155 04-13

THE EXCRETION OF NOREPINEPHRINE AND DOPAMINE ALCOHOLIC METABOLITES AFTER 6-HYDROXYDOPAMINE. (UNPUBLISHED PAPER).
151643 04-03

STUDY ON THE ABSORPTION AND EXCRETION OF RESERPINE AND ITS DERIVATIVE, BIETASERPINE.
158514 04-03

EXPERIMENTAL STUDIES ON THE DISTRIBUTION AND EXCRETION OF 203HG-ETHYLMERCURY CHLORIDE.
158516 04-03

D-LYSERGIC ACID DIETHYLAMIDE (LSD) -- EFFECT ON BIOGENIC AMINES EXCRETION IN MAN.
160802 04-13

THE EFFECT OF N-ALKYL CHAIN LENGTH AND STEREOCHEMISTRY ON THE ABSORPTION, METABOLISM AND URINARY EXCRETION OF N-ALKYLAMPHETAMINES IN MAN.
163800 04-13

NOREPINEPHRINE (NE) TURNOVER IN THE CENTRAL NERVOUS SYSTEM (CNS) -- ESTIMATED IN THE RAT FROM URINARY 3-METHOXY-4-HYDROXYPHENYLGLYCOL (MHPG) EXCRETION. (UNPUBLISHED PAPER
165941 04-03

EXIT

ENTRY AND EXIT FROM TREATMENT: SOME CONSEQUENCES OF PRETREATMENT EXPERIENCE FOR TREATMENT RESPONSE.
160218 04-17

EXOPHTHALMOS

ENDOCRINE EXOPHTHALMOS DURING LITHIUM THERAPY OF MANIC-DEPRESSIVE DISEASE.
155366 04-09

EXPECTED

PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09

EXPERIENCE

CLINICAL EXPERIENCE WITH A COMBINATION OF CHLORIMIPRAMINE AND THYROID EXTRACT IN THE TREATMENT OF PATIENTS SUFFERING FROM DEPRESSION.
149746 04-10

POTENTIATION OF THE EFFECTS OF CHLORPROMAZINE ON EXPLORATION IN THE RAT BY A PRIOR EXPERIENCE OF THE DRUG.
150671 04-04

EFFECTS ON OFFSPRING BEHAVIOR OF PARENTAL EARLY DRUG EXPERIENCE AND CROSS-FOSTERING.
157043 04-04

ENTRY AND EXIT FROM TREATMENT: SOME CONSEQUENCES OF PRETREATMENT EXPERIENCE FOR TREATMENT RESPONSE.
160218 04-17

CREATIVE PERFORMANCE AND THE HALLUCINOGENIC DRUG-INDUCED CREATIVE EXPERIENCE.
162156 04-12

EFFECTS OF AMPHETAMINE AND BARBITURATE ON BODY EXPERIENCE.
165416 04-14

EXPERIENCED

CANNABIS AND TEMPORAL DISINTEGRATION IN EXPERIENCED AND NAIVE SUBJECTS.
149649 04-14

SHORT-TERM EFFECTS OF MARIJUANA SMOKING ON COGNITIVE BEHAVIOR IN EXPERIENCED MALE USERS.
163755 04-14

EXPERIENCES

EXPERIENCES WITH CHLORMETHIAZOL (HEMINEURINE).
150747 04-11

THOUGHTS ON TREATMENT OF ADDICTION: EXPERIENCES WITH ARGINIL (GLUCOSE-1-PHOSPHATE-ARGININE).
151014 04-11

ANALYSIS OF CLINICAL EXPERIENCES OBTAINED IN 100 CASES OF ACUTE APAURINE DIAZEPAM INTOXICATION.
152085 04-15

PROBLEMS AND EXPERIENCES WITH TRIALS OUTSIDE THE UNITED-STATES: THE TIME LAG IN NEW DRUG AVAILABILITY.
155274 04-17

THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. I. SUBJECTIVE EXPERIENCES.
157343 04-14

CLINICAL EXPERIENCES WITH THE NEW ANTIDEPRESSANT MAPROTILIN 34276-BA.
164681 04-09

PREDICTION OF THERAPEUTIC USES OF PSYCHOTHERAPEUTIC DRUGS FROM EXPERIENCES WITH NORMAL VOLUNTEERS.
167106 04-14

EXPERIMENT

NEW APPARATUS FOR LEARNING EXPERIMENT AND ITS APPLICATION - THE EFFECT OF CHLORPROMAZINE, RESERPINE AND AMPHETAMINE.
158493 04-04

EXPERIMENTAL

MEMORY TRACES: EXPERIMENTAL SEPARATION BY CYCLOHEXIMIDE AND ELECTROCONVULSIVE SHOCK.
150312 04-04

CLINICAL AND EXPERIMENTAL STUDY OF THE ALCOHOL - THIOPROPERAZINE COMBINATION.
150623 04-17

THE RELEVANCE OF IMMUNOLOGIC STUDIES ON EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) TO CLINICAL INVESTIGATIONS ON MULTIPLE SCLEROSIS. (UNPUBLISHED PAPER).
152545 04-03

THE EXPERIMENTAL REPRODUCTION OF AMPHETAMINE PSYCHOSIS.
157345 04-12

EXPERIMENTAL AND CLINICAL STUDIES OF THE ANTICONVULSANT PROPERTIES OF A BENZODIAZEPINE DERIVATIVE, CLONAZEPAM (RO-5-4023).
158291 04-13

EXPERIMENTAL STUDIES ON THE DISTRIBUTION AND EXCRETION OF 203HG-ETHYLMERCURY CHLORIDE.
158516 04-03

THE CASE FOR REPORTING THE DRUG STATUS OF PATIENT SUBJECTS IN EXPERIMENTAL STUDIES OF SCHIZOPHRENIC PSYCHOPATHOLOGY.
159043 04-06

EXPERIMENTALLY

HYPNOTIC EFFECT OF 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA) IN EXPERIMENTALLY INDUCED INSOMNIA AND BRAIN SEROTONIN IN RATS.
158504 04-04

EXPERIMENTATION

PSYCHOMETRIC TESTS AND CLINICAL EXPERIMENTATION IN PSYCHIATRY.
160315 04-14

EXPERIMENTS

CLINICAL EXPERIMENTS WITH A NEW PSYCHOTROPIC: SULPIRIDE.
151263 04-07

EXPERIMENTS BEHIND BARS: DOCTORS, DRUG COMPANIES, AND PRISONERS.
156835 04-07

THE USE OF CLOMIPRAMINE IN PSYCHIATRY: REFLECTIONS ON FOUR YEARS OF EXPERIMENTS.
157234 04-09

EXPLORATION

POTENTIATION OF THE EFFECTS OF CHLORPROMAZINE ON EXPLORATION IN THE RAT BY A PRIOR EXPERIENCE OF THE DRUG.
150671 04-04

EXPLORATORY

EXPLORATORY ACTIVITY: GENETIC ANALYSIS OF ITS MODIFICATION BY SCOPOLAMINE AND AMPHETAMINE.
157099 04-04

EXPLORING

EXPLORING WITH DRUGS: THE PHARMACOLOGIST IN PSYCHIATRY.
152722 04-13

EXPOSURE

BRAIN BIOGENIC AMINES: DEPLETION BY CHRONIC DIELDRIN EXPOSURE.
166788 04-05

EXSUDATIVUM

DRUG ALLERGY TO THIOXANTHENE, MANIFESTED BY THE MORPHOLOGICAL PICTURE OF ERYTHEMA EXSUDATIVUM MULTIFORME, AS A RESULT OF TAKING CLOPENTHIXOL.
152089 04-15

EXTINCTION

EXTINCTION OF AVOIDANCE IN RATS: THE EFFECTS OF CHLORPROMAZINE AND METHYLPHENIDATE ADMINISTERED IN CONJUNCTION WITH FLOODING RESPONSE (PREVENTION).
152525 04-04

EFFECTS OF CHLORPROMAZINE AND PENTOBARBITAL ON PATTERN AND NUMBER OF RESPONSES IN EXTINCTION.
162530 04-04

THE EFFECTS OF PENTOBARBITAL ON EXTINCTION RESPONDING IN RATS. (PH.D. DISSERTATION).
164545 04-04

EXTRACT

CLINICAL EXPERIENCE WITH A COMBINATION OF CHLORIMIPRAMINE AND THYROID EXTRACT IN THE TREATMENT OF PATIENTS SUFFERING FROM DEPRESSION.
149746 04-10

SUBCHRONIC ORAL DOSES OF MARIHUANA EXTRACT.
153106 04-13

EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF CANNABIS-SATIVA EXTRACT ON THE MOUSE KILLING BEHAVIOR OF RATS.
159568 04-04

EXTRAPYRAMIDAL

DRUG-INDUCED EXTRAPYRAMIDAL SYMPTOMS. A COOPERATIVE STUDY.
156324 04-15

PRESENT DAY POSSIBILITIES OF RELIEVING POSTNEUROLEPTIC EXTRAPYRAMIDAL SYMPTOMS.
156562 04-11

TREATMENT OF EXTRAPYRAMIDAL SIDE-EFFECTS IN NEUROLEPTIC THERAPY.
166978 04-15

EXTREME

EFFECT OF RESERPINE ON FFA MOBILIZATION CAUSED BY EXTREME STIMULATION OF ANIMALS.
161964 04-03

FABRY

PSYCHOSIS IN FABRY DISEASE AND TREATMENT WITH PHENOXYBENZAMINE.
159775 04-07

FACILITATION

RETROACTIVE FACILITATION OF MEMORY IN GOLDFISH BY FLUROTHYL.
157036 04-04

ECS PRODUCED DISRUPTION OR FACILITATION OF DISCRIMINATED ACTIVE AVOIDANCE PERFORMANCE IN RATS.
157094 04-03

FACILITATION OF DEVELOPMENT OF TOLERANCE TO MORPHINE BY DESGLYCINAMIDE9-LYSINE VASOPRESSIN (DGVP). (UNPUBLISHED PAPER).
162738 04-03

FACILITATORY

THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03

FURTHER EVIDENCE IN SUPPORT OF A COMMON ADRENERGIC MECHANISM FOR THE FACILITATORY ACTION ON LEARNING OF AMPHETAMINE AND NICOTINE IN RATS.
158772 04-04

FAILING

FLUPHENAZINE DECANOATE TRIAL IN CHRONIC INPATIENT SCHIZOPHRENICS FAILING TO ABSORB ORAL CHLORPROMAZINE.
156741 04-08

FAILURE

FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION.
150424 04-03

EXCRETION AND METABOLISM OF RESERPINE IN RENAL FAILURE.
151155 04-13

ACUTE RENAL FAILURE AND LITHIUM INTOXICATION.
152032 04-15

FAILURES

TREATMENT FAILURES WITH L-DOPA IN PARKINSONISM.
151692 04-11

FASTING

PHENOTHIAZINE INDUCED T-WAVE ABNORMALITIES: EFFECTS OF OVERNIGHT FASTING.
152961 04-15

FATIGUED

A CONTROLLED EVALUATION OF PYROVALERONE IN CHRONICALLY FATIGUED VOLUNTEERS.
160217 04-14

FATTY

EFFECT OF PROPRANOLOL ON FREE FATTY ACIDS OF MICE PLASMA DURING A PASSIVE AVOIDANCE TEST.
157155 04-03

PHENOBARBITAL INDUCED FATTY LIVERS IN THE RAT.
163637 04-05

FEMALE

ACTIVATION OF LORDOTIC RESPONDING IN FEMALE RATS BY SUPPRESSION OF SEROTONERGIC ACTIVITY.
150380 04-04

INHIBITION OF MORPHINE INDUCED PITUITARY ADRENAL ACTIVATION BY DEXAMETHASONE IN THE FEMALE RAT (37506).
162049 04-03

FENFLURAMINE

N-ETHYL-ALPHA-METHYL-ALPHA (M-TRIFLUOROMETHYLBENZYL)NITRONE -- THE MAJOR IN VITRO METABOLIC PRODUCT OF FENFLURAMINE IN GUINEA-PIG LIVER MICROSOMAL FRACTIONS.
151634 04-03

PHARMACOLOGY AND BIOCHEMISTRY OF FENFLURAMINE.
152067 04-03

FENFLURAMINE: EFFECTS ON AGGRESSION.
152428 04-04

DIFFERENTIAL EFFECTS OF AMPHETAMINE, FENFLURAMINE AND NORFENFLURAMINE STEREOISOMERS ON THE INCREASE OF STRIATUM HOMOVANILLIC ACID IN RATS.
156759 04-03

BIPHASIC ACTION OF 5-HYDROXYTRYPTAMINE INHIBITOR ON FENFLURAMINE INDUCED ANOREXIA.
156804 04-03

EFFECT OF LONG-TERM FENFLURAMINE TREATMENT ON DRUG METABOLISM IN RAT.
163632 04-05

THE EFFECTS OF CHRONIC FENFLURAMINE ADMINISTRATION ON BEHAVIOUR AND BODY WEIGHT.
163759 04-04

THE EFFECTS OF FENFLURAMINE ON FIXED-RATIO RESPONDING.
163774 04-04
FENFLURAMINE (PONDERAL) IN TREATMENT OF ADIPOSITY CAUSED BY NEUROLEPTICS.
166986 04-09

FENTANYL-DROPERIDOL
COMPARATIVE STUDY OF THE EFFICACY OF DIAZEPAM, PENTOBARBITAL, AND FENTANYL-DROPERIDOL (THALAMONAL) AGAINST TOXICITY INDUCED BY LOCAL ANESTHETICS IN MICE.
158304 04-05

FETAL
DRUG INTERACTION -- EFFECT OF CHLORPROMAZINE ON THE DISPOSITION OF 8-14C-MESCALINE IN FETAL AND MATERNAL BRAIN AND LIVER IN PREGNANT MOUSE.
155221 04-03
CONTRIBUTING PHARMACOLOGIC FACTORS IN MORPHINE INDUCED FETAL MALFORMATIONS (PH.D. DISSERTATION).
159483 04-03
WEIGHING EVIDENCE THAT LINKS EPILEPSY DRUGS TO FETAL DEFECTS.
161357 04-15

FETOTOXIC
EMBRYO FETOTOXIC EFFECT OF METHYLMERCURIC CHLORIDE IN RATS AND MICE.
165730 04-05

FETUS
DRUG DISPOSITION IN THE FETUS AND NEWBORN INFANT.
159352 04-11
BRAIN LESIONS ON THE MOUSE FETUS CAUSED BY MONO SODIUM GLUTAMATE (SECOND REPORT).
160038 04-05

FFA
EFFECT OF RESERPINE ON FFA MOBILIZATION CAUSED BY EXTREME STIMULATION OF ANIMALS.
161964 04-03

FIBERS
DELTA9-TETRAHYDROCANNABINOL: EFFECTS ON MAMMALIAN NONMYELINATED NERVE FIBERS.
150383 04-03

FIBROBLASTS
THE EFFECT OF GEROVITAL-H3 ON THE GROWTH RATE OF AGED MOUSE EMBRYO FIBROBLASTS AND ON THE PATHOGENESIS INDUCED BY A RNA C-TYPE VIRUS.
166387 04-03

FIENDS
SEX-CRAZED DOPE FIENDS -- MYTH OR REALITY?
151309 04-04

FIGHTING
STUDIES OF ENZYMES AND MODULATORS IN SHOCK INDUCED FIGHTING.
155245 04-04
SEX DIFFERENCES IN FIGHTING AND DEFENSE INDUCED IN RATS BY SHOCK AND D-AMPHETAMINE DURING MORPHINE ABSTINENCE.
161125 04-04

FINE
A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

FIRING
COMPARISON OF EFFECTS OF L-DOPA, AMPHETAMINE AND APOMORPHINE ON FIRING RATE OF RAT DOPAMINERGIC NEURONES.
162974 04-03

FIXED-INTERVAL
FIXED-INTERVAL SCHEDULES OF INTRAVENOUS COCAINE PRESENTATION IN RATS.
155410 04-04
FIXED-INTERVAL SCHEDULE OF COCAINE REINFORCEMENT: EFFECT OF DOSE AND INFUSION DURATION.
155411 04-04

FIXED-RATIO
COMPARISON OF CHLORDIAZEPOXIDE AND FOOD DEPRIVATION IN RATS ON A FIXED-RATIO SATIATION SCHEDULE.
153599 04-04
COMPARABLE BEHAVIOR MAINTAINED UNDER FIXED-RATIO AND SECOND-ORDER SCHEDULES OF FOOD PRESENTATION, COCAINE INJECTION OR D-AMPHETAMINE INJECTION IN THE SQUIRREL MONKEY.
159367 04-04
THE EFFECTS OF FENFLURAMINE ON FIXED-RATIO RESPONDING.
163774 04-04

FLEXOR
INTERACTION OF OXOTREMORINE WITH ATROPINE, CHLORPROMAZINE, CYPROHEPTADINE, IMIPRAMINE AND PHENOXYBENZAMINE ON THE FLEXOR REFLEX OF THE CHRONIC SPINAL DOG.
150318 04-03

FLOODING
EXTINCTION OF AVOIDANCE IN RATS: THE EFFECTS OF CHLORPROMAZINE AND METHYLPHENIDATE ADMINISTERED IN CONJUNCTION WITH FLOODING RESPONSE (PREVENTION).
152525 04-04

FLOW
EFFECTS OF DIPHENYLHYDANTOIN ON LOCAL CEREBRAL BLOOD FLOW. (UNPUBLISHED PAPER)
164809 04-03

FLUID
A COMPARATIVE STUDY OF THE ACTION OF ACTINOMYCIN D AND ACTINOMYCINIC ACID ON THE CENTRAL NERVOUS SYSTEM WHEN INJECTED INTO THE CEREBROSPINAL FLUID OF HIGHER ANIMALS.
152436 04-05
ADENOSINE 3,5 MONOPHOSPHATE IN CEREBROSPINAL FLUID.
158154 04-13
ACID MONOAMINE METABOLITES IN THE CEREBROSPINAL FLUID OF PARKINSONIAN PATIENTS TREATED WITH LEVODOPA ALONE OR COMBINED WITH DECARBOXYLASE INHIBITOR.
160650 04-13
LEVODOPA AND DOPAMINE IN CEREBROSPINAL FLUID.
162138 04-06
ESTIMATION OF BRAIN AMINE METABOLISM IN AFFECTIVE ILLNESS: CEREBROSPINAL FLUID STUDIES UTILIZING PROBENECID.
164871 04-11

FLUIDS
ANALYSIS OF CANNABIS METABOLITES IN BIOLOGICAL FLUIDS.
160748 04-03

FLUNITRAZEPAM
FLUNITRAZEPAM (RO-5-4200) AND SLEEP CYCLE IN NORMAL SUBJECTS.
163773 04-14

FLUORACIZINE
PREVENTION OF RESERPINE DEPLETION OF THE CATECHOLAMINE RESERVE WITH FLUORACIZINE.
162922 04-03

FLUOROMETRIC
FLUOROMETRIC DETERMINATION OF 3-METHOXYTYRAMINE AND 3-METHOXY-4-HYDROXYPHENYLETHANOL.
151632 04-01

FLUPHENAZINE
RIGIDITY, HYPERPYREXIA AND COMA FOLLOWING FLUPHENAZINE ENANTHATE.
150669 04-15
EFFECTS OF LONG-ACTING FLUPHENAZINE.
156567 04-08
FLUPHENAZINE DECANOATE TRIAL IN CHRONIC INPATIENT SCHIZOPHRENICS FAILING TO ABSORB ORAL CHLORPROMAZINE.
156741 04-08
FLUPHENAZINE ENANTHATE AND FLUPHENAZINE DECANOATE: A COMPARISON OF THEIR DURATION OF ACTION AND MOTOR SIDE-EFFECTS.
161905 04-09
OUTPATIENT MANAGEMENT OF CHRONIC SCHIZOPHRENICS WITH FLUPHENAZINE ENANTHATE (PROLIXIN ENANTHATE): A CLINICAL EVALUATION.
164217 04-08

FLURAZEPAM
SLEEP LABORATORY AND CLINICAL STUDIES OF THE EFFECTS OF BENZODIAZEPINES ON SLEEP: FLURAZEPAM, DIAZEPAM, CHLORDIAZEPOXIDE, AND RO-5-4200.
158299 04-14
SLEEP LABORATORY AND CLINICAL STUDIES WITH FLURAZEPAM.
158300 04-14
CONTROLLED EVALUATION OF FLURAZEPAM HYDROCHLORIDE, A NEW NONBARBITURATE HYPNOTIC.
159473 04-07
FLURAZEPAM VERSUS DIAZEPAM IN ANESTHESIA: A CLINICAL STUDY.
167232 04-13

FLUROTHYL
RETROACTIVE FACILITATION OF MEMORY IN GOLDFISH BY FLUROTHYL.
157036 04-04
THE EFFECT OF HEXAFLUORODIETHYL ETHER (FLUROTHYL) ON THE METABOLISM OF RAT BRAIN AMINO ACIDS LABELLED BY (U-14C)GLUCOSE.
160767 04-03

FLUSPIRILENE
RESULTS OF THE EFFECTS OF FLUSPIRILENE ON CHRONIC SCHIZOPHRENIC PATIENTS UNDERGOING OCCUPATIONAL THERAPY.
160216 04-08

FLUX
EFFECT OF PENTOBARBITAL ON AMINO ACID AND UREA FLUX IN THE ISOLATED DOG BRAIN.
151733 04-03

FOCALLY
THE EFFECT OF FOCALLY ADMINISTERED DRUGS ON SELF-STIMULATION OF THE VENTRAL TEGMENTAL AREA IN RATS. (PH.D. DISSERTATION).
160896 04-04

FOLATE
SERUM FOLATE LEVELS DURING ANTICONVULSANT THERAPY WITH DIPHENYLHYDANTOIN.
152875 04-14

FOOD
CONCENTRATION INGESTION RELATIONS OF MORPHINE ADULTERATED FOOD AND MORPHINE SOLUTION.
150321 04-06
THE EFFECTS OF 6-HYDROXYDOPAMINE, DOPAMINE AND DL-NOREPINEPHRINE ON FOOD INTAKE AND WATER CONSUMPTION, SELF-STIMULATION, TEMPERATURE AND ELECTROENCEPHALOGRAPHIC ACTIVITY IN THE RAT.
150352 04-04
TOLERANCE IN THE DEPRESSION OF INTAKE WHEN AMPHETAMINE IS ADDED TO THE RATS FOOD.
150353 04-03
CATECHOLAMINE SYNTHESIS AND THE REGULATION OF FOOD INTAKE IN THE RAT.
150423 04-04
EFFECTS OF FOOD DEPRIVATION AND INITIAL LEVELS ON A WHEEL-RUNNING RESPONSE TO METHAMPHETAMINE.
152354 04-03
COMPARISON OF CHLORDIAZEPOXIDE AND FOOD DEPRIVATION IN RATS ON A FIXED-RATIO SATIATION SCHEDULE.
153599 04-04
COMPARABLE BEHAVIOR MAINTAINED UNDER FIXED-RATIO AND SECOND-ORDER SCHEDULES OF FOOD PRESENTATION, COCAINE INJECTION OR D-AMPHETAMINE INJECTION IN THE SQUIRREL MONKEY.
159367 04-04
THE EFFECTS OF PIMOZIDE ON DOMINANT SUBORDINATE BEHAVIOUR IN WISTAR RATS COMPETING FOR FOOD.
163758 04-04

FOOT
NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS.
160854 04-04

FOOTSHOCK
PATTERN OF SYMPATHETIC NERVOUS SYSTEM (SNS) DISCHARGE AND THE BLOOD PRESSURE RESPONSE TO FOOTSHOCK IN THE RAT.
153202 04-03

FOREBRAIN
INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04
MORPHINE DEPENDENCE IN RATS WITH MEDIAL FOREBRAIN BUNDLE LESIONS.
157152 04-03
OLFACTORY FOREBRAIN SEIZURES INDUCED BY METHAMPHETAMINE AND DISULFIRAM.
166064 04-03

FORENSIC
ADVANCES IN FORENSIC AND CLINICAL TOXICOLOGY.
167246 04-15

FORMATION
INHIBITION OF BRAIN GLUTAMATE DEHYDROGENASE BY A METABOLITE OF CYCLOHEXIMIDE AND ITS RELEVANCE FOR THE MECHANISM OF AMMONIA FORMATION IN BRAIN SLICES. (UNPUBLISHED PAPER).
151650 04-03
THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03
INHIBITORY EFFECT OF METHYLXANTHINES ON THE ADENOSINE STIMULATED FORMATION OF CYCLIC AMP IN BRAIN SLICES.
158512 04-03
INVOLVEMENT OF BIOGENIC AMINES IN MEMORY FORMATION: THE CENTRAL NERVOUS SYSTEM INDOLE AMINE INVOLVEMENT.
162272 04-03
EVIDENCE FOR THE BIOGENIC FORMATION OF AMPHETAMINE DERIVATIVES FROM COMPONENTS OF NUTMEG.
165997 04-01

FORMING
A DIMETHYLTRYPTAMINE FORMING ENZYME IN HUMAN BLOOD.
161892 04-17

FORMULAE
CLINICAL JUDGMENT VS. MULTIVARIATE FORMULAE IN ASSIGNMENT OF PSYCHOTROPIC DRUGS.
161818 04-14

FORMULATIONS
DETERMINATION OF TOTAL SALICYLATES, PHENACETIN AND/OR TOTAL N-ACETYL-P-AMINOPHENOL, AND CAFFEINE IN BIOLOGICAL SAMPLES AND ANALGESIC FORMULATIONS.
150410 04-01
AN INTRAVENOUS FORMULATIONS OF DELTA9-TETRAHYDROCANNABINOL USING A NONIONIC SURFACTANT.
156764 04-05

FRACTIONS
N-ETHYL-ALPHA-METHYL-ALPHA (M-TRIFLUOROMETHYLBENZYL)NITRONE – THE MAJOR IN VITRO METABOLIC PRODUCT OF FENFLURAMINE IN GUINEA-PIG LIVER MICROSOMAL FRACTIONS.
151634 04-03
LOCALIZATION IN BRAIN PARTICULATE FRACTIONS OF NARCOTIC ANALGESIC DRUGS ADMINISTERED INTRACISTERNALLY TO RATS.
157185 04-03
EFFECT OF CHLORPROMAZINE ON 3H-PHENAZINE METHOSULFATE UPTAKE INTO VARIOUS REGIONS OF RAT BRAIN AND INTO SUBCELLULAR FRACTIONS OF BRAIN AND LIVER (IN VITRO).
160202 04-03
INTERACTION OF DIPHENYLHYDANTONIN-4-14C WITH SUBCELLULAR FRACTIONS OF RAT BRAIN.
162949 04-03

FRANCE
NEW DRUG DEVELOPMENTS IN FRANCE AND FRENCH-SPEAKING COUNTRIES.
155272 04-17

FREE
COMPARATIVE EFFECTS OF SUBSTITUTED PHENOTHIAZINES AND THEIR FREE RADICALS ON (NA+,K+)- ACTIVATED ADENOSINE TRIPHOSPHATASE.
156640 04-03
EFFECTS OF DESIPRAMINE AND RESERPINE ON FREE AND BOUND ACETYLCHOLINE IN RAT BRAIN.
156807 04-03
EFFECT OF PROPRANOLOL ON FREE FATTY ACIDS OF MICE PLASMA DURING A PASSIVE AVOIDANCE TEST.
157155 04-03
CORTICAL CUPS FOR COLLECTING FREE ACETYLCHOLINE IN AWAKE RATS. (UNPUBLISHED PAPER)
158057 04-06

FREE-FLOATING
LACTATE INFUSION IN THE TREATMENT OF FREE-FLOATING ANXIETY.
153608 04-10

FREE-RANGING
BEHAVIOR OF FREE-RANGING MACAQUES AFTER INTRAVENTRICULAR 6-HYDROXYDOPAMINE.
163161 04-04

FRENCH-SPEAKING
NEW DRUG DEVELOPMENTS IN FRANCE AND FRENCH-SPEAKING COUNTRIES.
155272 04-17

FREQUENT
SPECIFIC CHEMOTHERAPY OF THE MOST FREQUENT SUDDEN NERVOUS DISEASES.
151004 04-11

FROG
INTERACTION OF COCAINE AND IPRONIAZID ON THE H3-NOREPINEPHRINE UPTAKE MECHANISM ON ISOLATED STRIP VENTRICLE OF FROG HEART.
165412 04-03

FUNCTION
INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04
THE COMPLEXITY OF THE INHIBITORY ACTION OF DICOUMAROL ON THE MIXED FUNCTION OXIDASE SYSTEM OF RAT LIVER MICROSOMES.
150582 04-03
THE POSSIBLE ROLE OF TRYPTAMINE IN BRAIN FUNCTION AND ITS RELATIONSHIP TO THE ACTIONS OF LSD-LIKE HALLUCINOGENS. (UNPUBLISHED PAPER).
151656 04-03
SOME CORRELATES OF MARIHUANA SELF-ADMINISTRATION IN MAN: A STUDY OF TITRATION OF INTAKE AS A FUNCTION OF DRUG POTENCY.
153100 04-13
SKIN CONDUCTANCE BASAL LEVEL AND REACTIVITY IN SCHIZOPHRENIA AS A FUNCTION OF CHRONICITY, PREMORBID ADJUSTMENT, DIAGNOSIS, AND MEDICATION.
154170 04-08
THE EFFECTS OF CHANGES IN IONIC ENVIRONMENT AND MODIFICATION OF ADRENERGIC FUNCTION ON THE VASCULAR RESPONSES TO SYMPATHOMIMETIC AMINES.
158769 04-03
EFFECTS OF NARCOTICS ON ENDOCRINE FUNCTION.
160749 04-13
THE EFFECT OF LITHIUM ON ADRENERGIC FUNCTION IN DOG.
163695 04-03

FUNCTIONING
BARBITURATE TOLERANCE AND PSYCHOLOGICAL FUNCTIONING IN ELDERLY DEPRESSED PATIENTS.
162639 04-09

FUNCTIONS
EFFECTS OF GENERAL ANESTHETICS ON MEMORY FUNCTIONS IN MAN.
151991 04-14
DRUG-INDUCED CHANGES OF STRIATAL CHOLINERGIC AND DOPAMINERGIC FUNCTIONS IN RATS WITH SPREADING DEPRESSION.
156797 04-03

GABA
EFFECTS OF SOME CHOLINERGIC, ADRENERGIC AND SEROTONINERGIC COMPOUNDS, GLUTAMIC ACID AND GABA ON HIPPOCAMPAL SEIZURES.
161963 04-03

GALACTOSE
EFFECT OF PHENOBARBITAL INDUCTION ON GALACTOSE ELIMINATION CAPACITY IN THE RAT.
160799 04-03

GALLAMINE
ELEVATION OF LIDOCAINE SEIZURE THRESHOLD BY GALLAMINE.
163313 04-03

GAMMA-AMINOBUTYRATE
MICROIONTOPHORETIC STUDIES OF CONFORMATIONALLY RESTRICTED ANALOGUES OF GAMMA-AMINOBUTYRATE OF RAT HIPPOCAMPAL NEURONS. (UNPUBLISHED PAPER).
151435 04-03
THE EFFECT OF THE CONVULSANT 3-MERCAPTOPROPIONIC ACID ON ENZYMES OF THE GAMMA-AMINOBUTYRATE SYSTEM IN THE RAT CEREBRAL CORTEX.
161378 04-03
ANALOGUES OF GAMMA-AMINOBUTYRATE ON RAT HIPPOCAMPAL NEURONES.
162975 04-03

GANGLION
SLOW SYNAPTIC INHIBITION AND ADRENERGIC ANTAGONISM IN SYMPATHETIC GANGLION. (UNPUBLISHED PAPER)
162394 04-03

GAP
OVERDOSAGE AND/OR POISONING -- THE INFORMATION GAP.
156641 04-15

GAS
METABOLISM OF AMPHETAMINES. IDENTIFICATION OF N-OXYGENATED PRODUCTS BY GAS CHROMATOGRAPHY AND MASS SPECTROMETRY.
165998 04-06

GASTROINTESTINAL
CHLORPROMAZINE: EFFECTS OF ANTACIDS ON ITS GASTROINTESTINAL ABSORPTION.
166716 04-13

GC-MASS
APPLICATION OF QUANTITATIVE GC-MASS SPECTROMETRY TO STUDY OF PHARMACOKINETICS OF AMPHETAMINE AND PHENTERMINE.
163188 04-03

GENETIC
GENETIC PROGRAM OF BRAIN BIOGENIC AMINES AND AGGRESSIVE BEHAVIOR.
155244 04-03
THE INFLUENCE OF PSYCHOTROPIC DRUGS ON THE GENETIC CELL MATERIAL.
156569 04-15
EXPLORATORY ACTIVITY: GENETIC ANALYSIS OF ITS MODIFICATION BY SCOPOLAMINE AND AMPHETAMINE.
157099 04-04

GENETICALLY
ETHANOL AND ACETALDEHYDE METABOLISM IN RAT STRAINS GENETICALLY SELECTED FOR THEIR ETHANOL PREFERENCE.
160542 04-03

GERIATRIC
MANAGEMENT OF EMOTIONAL DISTURBANCES IN GERIATRIC PATIENTS.
152031 04-11

GERIATRICS
POSSIBLE RATIONALE FOR PROCAINE (GEROVITAL-H3) THERAPY IN GERIATRICS: INHIBITION OF MONOAMINE OXIDASE.
160951 04-11

GERMAN-SPEAKING
NEW DRUG DEVELOPMENTS IN GERMAN-SPEAKING COUNTRIES.
155271 04-17

GERMANY
FOUR NEW DRUG DEVELOPMENTS FROM DENMARK, RUSSIA, AND WEST GERMANY.
155275 04-14

GEROVITAL-H3
POSSIBLE RATIONALE FOR PROCAINE (GEROVITAL-H3) THERAPY IN GERIATRICS: INHIBITION OF MONOAMINE OXIDASE.
160951 04-11
INHIBITORY EFFECT OF GEROVITAL-H3 AND PROCAINE ON MONOAMINE OXIDASE IN RAT BRAIN, LIVER, HEART AND PLATELETS.
166386 04-11
THE EFFECT OF GEROVITAL-H3 ON THE GROWTH RATE OF AGED MOUSE EMBRYO FIBROBLASTS AND ON THE PATHOGENESIS INDUCED BY A RNA C-TYPE VIRUS.
166387 04-03
THE NATURE OF THE INHIBITION OF MONOAMINE OXIDASE PRODUCED BY GEROVITAL-H3.
166388 04-03
POSSIBLE SITE OF ACTION OF GEROVITAL-H3 IN THE CENTRAL NERVOUS SYSTEM.
166389 04-03
GEROVITAL-H3 IN TREATMENT OF DEPRESSION. PRELIMINARY RESULTS.
166390 04-09

GIANT
COMPARISON OF THE EFFECT OF DELTA9-TETRAHYDROCANNABINOL, 11-HYDROXY-DELTA9-TETRAHYDROCANNABINOL, AND ETHANOL ON THE ELECTROPHYSIOLOGICAL ACTIVITY OF THE GIANT AXON OF THE SQUID.
156816 04-03

GILLES-DE-LA-TOURETTES
GILLES-DE-LA-TOURETTES DISEASE AND MINIMAL BRAIN DYSFUNCTION: AMPHETAMINE ISOMERS REVEAL CATECHOLAMINE CORRELATES IN AN AFFECTED PATIENT.
153097 04-11

GINSENG
EFFECT OF GINSENOSIDE-RGL, A SAPONIN OF PANAX GINSENG ROOT, ON LEARNING AND MEMORY IN RATS.
158490 04-04

GINSENOSIDE-RGL
EFFECT OF GINSENOSIDE-RGL, A SAPONIN OF PANAX GINSENG ROOT, ON LEARNING AND MEMORY IN RATS.
158490 04-04

GLANDS
ALTERATION OF SEXUAL BEHAVIOR AND SEX ACCESSORY GLANDS BY P-CHLOROPHENYLALANINE AND TESTOSTERONE.
150422 04-04
APPLICATION OF PRINCIPLES OF STEADY-STATE KINETICS TO MEASURE ACETYLCHOLINE TURNOVER RATE IN RAT SALIVARY GLANDS: EFFECT OF DEAFFERENTATION AND DUCT LIGATION.
163763 04-03

GLC
DETERMINATION OF A BENZOTHIAZEPIN-2-ONE IN BLOOD BY GLC ELECTRON CAPTURE DETECTION.
150413 04-06

GLENDALE
EFFECTS OF RITALIN ON HYPERKINETIC CHILDREN ATTENDING THE GLENDALE ELEMENTARY SCHOOLS. (ED.D. DISSERTATION).
162069 04-11

GLUCOSE
THE EFFECT OF HEXAFLUORODIETHYL ETHER (FLUROTHYL) ON THE METABOLISM OF RAT BRAIN AMINO ACIDS LABELLED BY (U-14C)GLUCOSE.
160767 04-03

GLUCOSE-1-PHOSPHATE-ARGININE
THOUGHTS ON TREATMENT OF ADDICTION: EXPERIENCES WITH ARGINIL (GLUCOSE-1-PHOSPHATE-ARGININE).
151014 04-11

GLUCURONIDATION
COMPARISON BETWEEN O-AMINOPHENOL GLUCURONIDATION IN LIVER SLICES AND HOMOGENATES FROM CONTROL AND PHENOBARBITAL TREATED WISTAR AND GUNN RATS.
151351 04-03

GLUTAMATE
INHIBITION OF BRAIN GLUTAMATE DEHYDROGENASE BY A METABOLITE OF CYCLOHEXIMIDE AND ITS RELEVANCE FOR THE MECHANISM OF AMMONIA FORMATION IN BRAIN SLICES. (UNPUBLISHED PAPER).
151650 04-03
BRAIN LESIONS ON THE MOUSE FETUS CAUSED BY MONO SODIUM GLUTAMATE (SECOND REPORT).
160038 04-05

GLUTAMIC
EFFECTS OF SOME CHOLINERGIC, ADRENERGIC AND SEROTONINERGIC COMPOUNDS, GLUTAMIC ACID AND GABA ON HIPPOCAMPAL SEIZURES.
161963 04-03

GLUTATHIONE
GLUTATHIONE THERAPY OF EARLY SENILE DEMENTIA.
166908 04-09

GLYCEROL
EFFECT OF AN AMPHETAMINE DERIVATIVE IN RAT ADIPOSE TISSUE LIPOLYSIS AND GLYCEROL UTILIZATION IN VITRO.
166693 04-03

GLYCERYL
POTENTIATING EFFECT OF CHLORPROMAZINE ON GLYCERYL GUAIACOLATE ETHER INDUCED HEMOLYSIS OF RAT, DOG AND HUMAN BLOOD IN VITRO.
166790 04-13

GLYCOGEN
CANNABINOID EFFECTS ON LIVER GLYCOGEN STORES.
156321 04-03
GLYCOGEN CONTENT AND PHOSPHORYLASE ACTIVITY IN LIVER AND SKELETAL MUSCLE OF NORMAL AND CHRONICALLY MORPHINIZED RATS.
156638 04-03

GLYCOLYTIC
THE EFFECT OF PHENOBARBITONE ANESTHESIA UPON SOME ORGANIC PHOSPHATES, GLYCOLYTIC METABOLITES AND CITRIC ACID CYCLE ASSOCIATED INTERMEDIATES OF THE RAT BRAIN.
160226 04-03

GLYOXYLATES
SYNTHESIS AND CNS DEPRESSANT ACTIVITY OF IMIDAZOLINONE GLYOXYLATES.
150415 04-02

GOLDFISH
RETROACTIVE FACILITATION OF MEMORY IN GOLDFISH BY FLUROTHYL.
157036 04-04
EFFECTS OF PIRACETAM (SKF-38462) ON ACQUISITION, RETENTION, AND ACTIVITY IN THE GOLDFISH.
162276 04-04

GONADOTROPHIN
HUMAN CHORIONIC GONADOTROPHIN (PREGNYL) IN THE TREATMENT OF NOCTURNAL ENURESIS.
158013 04-13

GPA-1851
INTERACTION OF THE IMIDAZOLONE DERIVATIVE GPA-1851 WITH HEPATIC MICROSOMAL DRUG METABOLISM.
151906 04-03

GREECE
CROSS-CULTURAL OPPORTUNITIES AND PROBLEMS IN STUDIES OF CHRONIC HASHISH USERS IN GREECE.
155264 04-15

GROOMING
EFFECTS OF RESERPINE, 6-HYDROXYDOPAMINE, P-CHLOROPHENYLALANINE AND A COMBINATION OF THESE SUBSTANCES ON THE GROOMING BEHAVIOUR OF MICE.
158001 04-04
5-HYDROXYTRYPTAMINE METABOLISM, SUPERIOR-COLLICULUS, AND GROOMING BEHAVIOR IN CATS WITH PONTILE LESIONS.
166157 04-03

GROUP
GROUP TOXICITY AND INDIVIDUAL TOXICITY -- THE SIZE OF A GROUP AND PHARMACOLOGICAL EFFECTS.
154994 04-05

GROWTH
FACTORS INFLUENCING THE SUPPRESSANT EFFECTS OF TWO STIMULANT DRUGS ON THE GROWTH OF HYPERACTIVE CHILDREN.
151592 04-15
EFFECT OF L-DOPA ON PLASMA GROWTH HORMONE AND INSULIN.
151693 04-13
CHLORPROMAZINE TREATMENT AND GROWTH HORMONE SECRETORY RESPONSES IN ACROMEGALY.
156770 04-11
GROWTH AND BEHAVIORAL CHANGES IN DEVELOPING RATS TREATED INTRACISTERNALLY WITH 6-HYDROXYDOPAMINE: EVIDENCE FOR INVOLVEMENT OF BRAIN DOPAMINE.
157117 04-03
GROWTH OF SUCKLING RATS AFTER TREATMENT WITH DEXAMETHASONE OR CORTISOL: IMPLICATIONS FOR STEROID THERAPY IN HUMAN INFANTS.
159355 04-03
GROWTH RETARDATION IN YOUNG MICE TREATED WITH DL-METHADONE.
159654 04-03
CHILDHOOD ACROMEGALY: SUCCESSFUL THERAPY WITH CONVENTIONAL RADIATION AND EFFECTS OF CHLORPROMAZINE ON GROWTH HORMONE AND PROLACTIN SECRETION.
160653 04-13
A COMPARISON OF THE METABOLIC EFFECTS OF GROWTH HORMONE AND GROWTH FACTOR FROM SPIROMETRA-MANSONOIDES ON RAT LIVER IN VIVO. (UNPUBLISHED PAPER).
162391 04-03
THE EFFECT OF GEROVITAL-H3 ON THE GROWTH RATE OF AGED MOUSE EMBRYO FIBROBLASTS AND ON THE PATHOGENESIS INDUCED BY A RNA C-TYPE VIRUS.
166387 04-03

GUAIACOLATE
POTENTIATING EFFECT OF CHLORPROMAZINE ON GLYCERYL GUAIACOLATE ETHER INDUCED HEMOLYSIS OF RAT, DOG AND HUMAN BLOOD IN VITRO.
166790 04-13

GUANETHIDINE
THE REVERSIBILITY OF SIDE-EFFECTS OF GUANETHIDINE THERAPY.
160939 04-05
FURTHER STUDIES ON THE ADRENERGIC NEURON BLOCKING ACTIVITY OF SOME BETA-ADRENOCEPTOR ANTAGONISTS AND GUANETHIDINE.
161141 04-03
ANTAGONISM OF GUANETHIDINE BY CHLORPROMAZINE.
161907 04-13

GUINEA-PIG
N-ETHYL-ALPHA-METHYL-ALPHA (M-TRIFLUOROMETHYLBENZYL)NITRONE -- THE MAJOR IN VITRO METABOLIC PRODUCT OF FENFLURAMINE IN GUINEA-PIG LIVER MICROSOMAL FRACTIONS.
151634 04-03
MORPHINE TOLERANCE AND SUPERSENSITIVITY TO 5-HYDROXYTRYPTAMINE IN THE MYENTERIC PLEXUS OF THE GUINEA-PIG.
157318 04-03
POTENTIATING MECHANISM BY OUABAIN ON CONTRACTIONS OF GUINEA-PIG VAS-DEFERENS TO 5-HT AND OTHER AMINES.
158475 04-03
FURTHER STUDIES ON THE INCREASED SYNTHESIS OF NOREPINEPHRINE DURING NERVE STIMULATION OF GUINEA-PIG VAS-DEFERENS PREPARATION: EFFECT OF TYROSINE AND 6,7 DIMETHYLTETRAHYDROPTERIN.
159368 04-03
THE EFFECT OF SMALL DOSES OF MECAMYLAMINE ON SHUTTLEBOX BEHAVIOR IN THE GUINEA-PIG.
163020 04-04

GUINEA-PIGS
TRICYCLIC ANTIDEPRESSANTS: ACTION ON SYNAPTOSOMAL ACETYLCHOLINESTERASE AND ATPASE IN THE BRAIN OF GUINEA-PIGS AND SUBCELLULAR DISTRIBUTION.
156813 04-03

GUNN
COMPARISON BETWEEN O-AMINOPHENOL GLUCURONIDATION IN LIVER SLICES AND HOMOGENATES FROM CONTROL AND PHENOBARBITAL TREATED WISTAR AND GUNN RATS.
151351 04-03

HABIT
EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING.
158000 04-04

HABITUATED
DIFFERENTIAL EFFECTS OF DELTA9-THC ON LOCOMOTOR BEHAVIOR IN ACTIVITY WHEEL HABITUATED AND NONHABITUATED RATS.
157182 04-04

HABITUATION
THE EFFECT OF DEXTROAMPHETAMINE ON HABITUATION OF PERIPHERAL VASCULAR RESPONSE IN CHILDREN.
154739 04-14

HALDOL
A DOUBLE-BLIND COMPARISON OF HALOPERIDOL (HALDOL) AND THIORIDAZINE (MELLARIL) IN OUTPATIENT CHILDREN.
152212 04-11

HALLUCINATIONS
PARTICIPATION OF RETINAL MECHANISMS IN DMT HALLUCINATIONS.
163633 04-03
COLOURED LILLIPUTIAN HALLUCINATIONS WITH AMANTADINE.
163694 04-15

HALLUCINOGENIC
HALLUCINOGENIC DRUGS.
150040 04-17
SEARCH FOR NEW HALLUCINOGENIC CACTI.
156875 04-01
CREATIVE PERFORMANCE AND THE HALLUCINOGENIC DRUG-INDUCED CREATIVE EXPERIENCE.
162156 04-12
COMPARATIVE EFFECTS OF STEREOISOMERS OF HALLUCINOGENIC AMPHETAMINES.
162292 04-03
MODE OF ACTION OF HALLUCINOGENIC MOLECULES.
162336 04-03
PHYTOCHEMICAL INVESTIGATION OF VIROLA-PERUVIANA, A NEW HALLUCINOGENIC PLANT.
163189 04-12
SOME EFFECTS OF THE HALLUCINOGENIC DRUG 2,5 DIMETHOXY-4-METHYLAMPHETAMINE ON THE METABOLISM OF BIOGENIC AMINES IN THE RAT BRAIN.
163749 04-03
A COMPARISON OF COMMON INTERATOMIC DISTANCES IN SEROTONIN AND SOME HALLUCINOGENIC DRUGS.
167042 04-01

HALLUCINOGENS
II. THE EFFECTS OF SOME HALLUCINOGENS ON AGGRESSIVENESS OF MICE AND RATS.
150406 04-04
THE POSSIBLE ROLE OF TRYPTAMINE IN BRAIN FUNCTION AND ITS RELATIONSHIP TO THE ACTIONS OF LSD-LIKE HALLUCINOGENS. (UNPUBLISHED PAPER).
151656 04-03
STATE-DEPENDENT LEARNING (DISSOCIATION OF LEARNING) WITH HALLUCINOGENS IN RATS.
158492 04-04

HALLUCINOGENSIS
STEREOSPECIFIC REQUIREMENTS FOR HALLUCINOGENSIS.
161146 04-01

HALOGENATED
THE NEUROTOXICITY OF THE HALOGENATED HYDROXYQUINOLINES: A COMMENTARY.
156069 04-15

HALOPERIDOL
SLEEPLESSNESS IN ACUTE AND CHRONIC SCHIZOPHRENIA -- RESPONSE TO HALOPERIDOL AND ANTIPARKINSONISM AGENTS. 150351 04-08
SYNAPTIC ALTERATIONS IN THE RABBIT HYPOTHALAMUS FOLLOWING LONG-TERM ADMINISTRATION OF HALOPERIDOL. 150398 04-05
LOW DOSES OF HALOPERIDOL IN ANXIETY -- TENSION STATES. 150554 04-10
HALOPERIDOL VERSUS DIAZEPAM: A DOUBLE-BLIND CROSSOVER CLINICAL TRIAL. 150790 04-10
SYNAPTIC CHANGES IN THE RABBIT PALLIDUM FOLLOWING LONG-TERM HALOPERIDOL ADMINISTRATION. 152027 04-05
THE THERAPEUTIC EFFECTS OF LORAZEPAN IN PSYCHOTIC PATIENTS TREATED WITH HALOPERIDOL: A DOUBLE-BLIND STUDY. 152209 04-09
A DOUBLE-BLIND COMPARISON OF HALOPERIDOL (HALDOL) AND THIORIDAZINE (MELLARIL) IN OUTPATIENT CHILDREN. 152212 04-11
RAPID TRANQUILIZATION OF ACUTELY PSYCHOTIC PATIENTS WITH INTRAMUSCULAR HALOPERIDOL AND CHLORPROMAZINE. 155797 04-09
THE EFFECT OF TRIVASTAL, HALOPERIDOL AND DIBUTYRYL CYCLIC AMP ON (14C)DOPAMINE SYNTHESIS IN RAT STRIATUM. 156766 04-03
A DOUBLE-BLIND COMPARISON OF HALOPERIDOL ORAL CONCENTRATE, HALOPERIDOL SOLUTABS AND PLACEBO IN THE TREATMENT OF CHRONIC SCHIZOPHRENIA. 156939 04-08
EFFECTS OF CHLORPROMAZINE AND HALOPERIDOL ON THE DISPOSITION OF MESCALINE-14C IN MICE. 157067 04-04
HALOPERIDOL AND CHLORPROMAZINE: A DOUBLE-BLIND CROSSOVER TRIAL AND CLINICAL STUDY IN CHILDREN AND ADOLESCENTS. 161661 04-11
KINETICS AND DYNAMICS OF RESPONSE TO HALOPERIDOL IN ACUTE SCHIZOPHRENIA -- A LONGITUDINAL STUDY OF THE THERAPEUTIC PROCESS. 162869 04-08
DOUBLE-BLIND COMPARISON OF HALOPERIDOL AND THIORIDAZINE IN TREATMENT RESISTANT PSYCHONEUROTIC OUTPATIENTS. 163337 04-10
HALOPERIDOL IN THE TREATMENT OF NAUSEA AND VOMITING DUE TO CYTOTOXIC DRUG ADMINISTRATION. 164218 04-15
A COMPARATIVE TRIAL OF HALOPERIDOL AND THIORIDAZINE: MANAGEMENT OF CHRONIC SCHIZOPHRENIA. 165621 04-08

HALOTHANE
INCREASED BLOOD ETHANOL ELIMINATION IN RATS TREATED WITH HALOTHANE. 165995 04-03

HANDICAP
BEHAVIOURAL AND DRUG TREATMENT OF CHILDREN WITH SEVERE MENTAL HANDICAP. 151452 04-11

HANDLING
CONVULSIONS ELICITED BY HANDLING: A SENSITIVE METHOD OF MEASURING CNS EXCITATION IN MICE TREATED WITH RESERPINE OR CONVULSANT DRUGS. 163748 04-03

HASHISH
INTAKE OF DIAZEPAM AND HASHISH BY ALCOHOL PREFERRING RATS DEPRIVED OF ALCOHOL. 153571 04-03
CROSS-CULTURAL OPPORTUNITIES AND PROBLEMS IN STUDIES OF CHRONIC HASHISH USERS IN GREECE. 155264 04-15

HAZARDS
LITHIUM AND PREGNANCY - II, HAZARDS TO WOMEN GIVEN LITHIUM DURING PREGNANCY AND DELIVERY. 155042 04-15
HAZARDS IMPLICIT IN PRESCRIBING PSYCHOACTIVE DRUGS. 158625 04-17

HEADACHE
5-HYDROXYTRYPTAMINE SUPERSENSITIVITY AS A NEW THEORY OF HEADACHE AND CENTRAL PAIN: A CLINICAL PHARMACOLOGICAL APPROACH WITH P-CHLOROPHENYLALANINE. 150670 04-15
CYCLOBENZAPRINE IN THE TREATMENT OF CHRONIC TENSION HEADACHE. 151201 04-11

HEADACHES
THE TREATMENT OF MUSCLE CONTRACTION HEADACHES WITH DIAZEPAM. 163681 04-11

HEART
NEUROMUSCULAR BLOCKING DRUGS AND THE HEART RATE RESPONSE TO DIRECT PREGANGLIONIC STIMULATION OF THE SYMPATHETICS AND PARASYMPATHETICS IN THE CAT. 153171 04-03
STERIC ASPECTS OF ADRENERGIC DRUGS XXII: RETENTION OF (_)- AND (-) 14C-NOREPINEPHRINE BY MOUSE HEART. 157302 04-01
EEG, HEART RATE AND MOOD CHANGE (HIGH) AFTER CANNABIS. 163747 04-13
INTERACTION OF COCAINE AND IPRONIAZID ON THE H3-NOREPINEPHRINE UPTAKE MECHANISM ON ISOLATED STRIP VENTRICLE OF FROG HEART. 165412 04-03
INHIBITORY EFFECT OF GEROVITAL-H3 AND PROCAINE ON MONOAMINE OXIDASE IN RAT BRAIN, LIVER, HEART AND PLATELETS. 166386 04-11

HEATSTROKE
HEATSTROKE IN THREE CHRONIC SCHIZOPHRENICS: CASE REPORTS AND CLINICAL CONSIDERATIONS. 153273 04-15

HEMINEURINE
EXPERIENCES WITH CHLORMETHIAZOL (HEMINEURINE). 150747 04-11

HEMOLYSIS
POTENTIATING EFFECT OF CHLORPROMAZINE ON GLYCERYL GUAIACOLATE ETHER INDUCED HEMOLYSIS OF RAT, DOG AND HUMAN BLOOD IN VITRO. 166790 04-13

HEPATIC
INTERACTION OF THE IMIDAZOLONE DERIVATIVE GPA-1851 WITH HEPATIC MICROSOMAL DRUG METABOLISM. 151906 04-03
USE OF ORAL DDT IN THREE HUMAN BARBITURATE INTOXICATIONS: HEPATIC ENZYME INDUCTION BY RECIPROCAL DETOXICANTS. 155205 04-15
INTERACTIONS OF SEVERAL CANNABINOIDS WITH THE HEPATIC DRUG METABOLIZING SYSTEM. 166689 04-03

HEPATITIS
THIORIDAZINE TOXICITY: AGRANULOCYTOSIS AND HEPATITIS WITH ENCEPHALOPATHY. 150843 04-15
SEVERE INFECTIOUS HEPATITIS COMPLICATED WITH ACUTE PSYCHOSIS DURING HYDROCORTISONE TREATMENT. 151380 04-11

HEPATOMA
INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE. 150583 04-03

HETEROCYCLICS
SEVEN-MEMBERED HETEROCYCLICS OF MEDICINAL POTENTIAL. 156878 04-01

HEXAFLUORODIETHYL
THE EFFECT OF HEXAFLUORODIETHYL ETHER (FLUROTHYL) ON THE METABOLISM OF RAT BRAIN AMINO ACIDS LABELLED BY (U-14C)GLUCOSE. 160767 04-03

HEXOBARBITAL
POSSIBLE MECHANISM OF PILOCARPINE POTENTIATION OF HEXOBARBITAL HYPNOSIS IN MICE. 158477 04-03

HIPPOCAMPAL
MICROIONTOPHORETIC STUDIES OF CONFORMATIONALLY RESTRICTED ANALOGUES OF GAMMA-AMINOBUTYRATE OF RAT HIPPOCAMPAL NEURONS. (UNPUBLISHED PAPER). 151435 04-03
HIPPOCAMPAL EPILEPSY PRODUCED BY OUABAIN: STUDIES OF CEREBRAL CIRCULATION AND IONIC METABOLISM. 160649 04-03
EFFECTS OF SOME CHOLINERGIC, ADRENERGIC AND SEROTONINERGIC COMPOUNDS, GLUTAMIC ACID AND GABA ON HIPPOCAMPAL SEIZURES. 161963 04-03
ANALOGUES OF GAMMA-AMINOBUTYRATE ON RAT HIPPOCAMPAL NEURONES. 162975 04-03

HIPPOCAMPUS
EFFECTS OF CANNABIDIOL AND OF DIPHENYLHYDANTOIN ON THE HIPPOCAMPUS AND ON LEARNING. 157145 04-04
A PROJECTION OF THE NUCLEUS LOCUS-COERULEUS TO THE HIPPOCAMPUS OF THE RAT. (UNPUBLISHED PAPER). 164836 04-03

HISTAMINE
BLOOD HISTAMINE, BASOPHIL COUNTS, AND TRACE ELEMENTS IN THE SCHIZOPHRENIAS. 150964 04-08

DEVELOPMENT AND CHARACTERISTICS OF THE HISTAMINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RABBIT CEREBRAL CORTEX. (UNPUBLISHED PAPER).
154372 04-03

THE INTERACTION OF CHLORDIAZEPOXIDE, DIAZEPAM, AND NITRAZEPAM WITH CATECHOLAMINES AND HISTAMINE IN REGIONS OF THE RAT BRAIN.
160471 04-03

COMPARISON OF EFFECTS OF NORADRENALINE AND HISTAMINE WITH CYCLIC AMP ON BRAIN STEM NEURONES.
162893 04-03

HISTOCHEMICAL

A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

HISTORY

ALCOHOL HISTORY IN DRUG TREATMENT.
156740 04-11

HOFFMANN

THE INFLUENCE OF METHAMPHETAMINE AND DIAZEPAM ON THE AMPLITUDE CHANGES OF THE ACHILLES TENDON AND HOFFMANN REFLEX DURING A MENTAL TASK.
152074 04-14

HOLE-BOARD

THE EFFECTS OF BENZODIAZEPINES ON THE BEHAVIOUR OF MICE ON A HOLE-BOARD.
153102 04-04

HOMOGENATES

COMPARISON BETWEEN O-AMINOPHENOL GLUCURONIDATION IN LIVER SLICES AND HOMOGENATES FROM CONTROL AND PHENOBARBITAL TREATED WISTAR AND GUNN RATS.
151351 04-03

UPTAKE OF (3H)- CATECHOLAMINES BY HOMOGENATES OF RAT CORPUS-STRIATUM AND CEREBRAL CORTEX: EFFECTS OF AMPHETAMINE ANALOGUES.
160637 04-03

AMPHETAMINE-INDUCED INHIBITION OF TYROSINE HYDROXYLATION IN HOMOGENATES OF RAT CORPUS-STRIATUM.
166000 04-03

HOMOVANILLIC

DIFFERENTIAL EFFECTS OF AMPHETAMINE, FENFLURAMINE AND NORFENFLURAMINE STEREOISOMERS ON THE INCREASE OF STRIATUM HOMOVANILLIC ACID IN RATS.
156759 04-03

PHARMACOLOGICAL STUDIES ON MECHANISM OF ANTIPARKINSONIAN DRUGS (REPORT 2): ELEVATION OF STRIATAL HOMOVANILLIC ACID CONTENT BY OXOTREMORINE AND ITS MODIFICATION BY ANTICHOLINERGICS.
158501 04-03

HOPE

PSYCHOTROPIC DRUGS: AGENTS OF HOPE OR DESPAIR.
163001 04-17

HORMONE

EFFECT OF L-DOPA ON PLASMA GROWTH HORMONE AND INSULIN.
151693 04-13

CHLORPROMAZINE TREATMENT AND GROWTH HORMONE SECRETORY RESPONSES IN ACROMEGALY.
156770 04-11

CHILDHOOD ACROMEGALY: SUCCESSFUL THERAPY WITH CONVENTIONAL RADIATION AND EFFECTS OF CHLORPROMAZINE ON GROWTH HORMONE AND PROLACTIN SECRETION.
160653 04-13

A COMPARISON OF THE METABOLIC EFFECTS OF GROWTH HORMONE AND GROWTH FACTOR FROM SPIROMETRA-MANSONOIDES ON RAT LIVER IN VIVO. (UNPUBLISHED PAPER).
162391 04-03

HORMONES

TRH AND THYROID HORMONES: DOPA RESPONSE AND DOPA METABOLISM.
155253 04-03

THYROID HORMONES AND CATECHOLAMINE MACROMOLECULAR MECHANISMS IN CNS.
155260 04-03

ROLE OF ADRENAL HORMONES IN INCUBATION BEHAVIOR OF MALE RING DOVES (STREPTOPELIA-RISORIA).
162667 04-03

HOSPITAL

HOSPITAL TESTING OF AN ORAL LONG-TERM NEUROLEPTIC: PENFLURIDOL.
156892 04-08

ROLE OF CONSULTATION PSYCHIATRY IN TEACHING PSYCHOPHARMACOLOGY IN THE GENERAL HOSPITAL.
161595 04-17

HOSPITALIZED

A CONTROLLED DOUBLE-BLIND COMPARISON BETWEEN LOXAPINE SUCCINATE AND CHLORPROMAZINE IN ACUTE NEWLY HOSPITALIZED SCHIZOPHRENIC PATIENTS.
150835 04-08

CHARACTERISTICS OF PENTAZOCINE DEPENDENCE IN HOSPITALIZED PATIENTS AFTER NALOXONE ADMINISTRATION.
157037 04-15

HOUSED

EFFECTS OF D-AMPHETAMINE ON THE INCORPORATION OF CARBON ATOMS OF D-MANNOSE INTO THE BRAINS AND SERA OF DIFFERENTIALLY HOUSED MICE: SHORT-TERM REVERSIBILITY OF THESE EFFECTS.
163779 04-03

HOUSING

CONTRIBUTIONS OF DIFFERENTIAL HOUSING TO BRAIN DEVELOPMENT: SOME IMPLICATIONS FOR SLEEP BEHAVIOR.
151705 04-03

HUMAN

ACCUMULATION, STORAGE AND RELEASE OF ADRENERGIC NEURON BLOCKING AGENTS AND RELATED DRUGS BY HUMAN PLATELETS.
150316 04-03

HUMAN METABOLITE OF NALTREXONE (N-CYCLOPROPYLMETHYLNOROXYMORPHONE) WITH A NOVEL C-6 ISOMORPHINE CONFIGURATION. (UNPUBLISHED PAPER).
152201 04-13

USE OF ORAL DDT IN THREE HUMAN BARBITURATE INTOXICATIONS: HEPATIC ENZYME INDUCTION BY RECIPROCAL DETOXICANTS.
155205 04-15

LYSERGIC ACID DIETHYLAMIDE: ITS EFFECTS ON HUMAN CHROMOSOMES AND THE HUMAN ORGANISM IN UTERO. A REVIEW OF CURRENT FINDINGS.
156527 04-15

BINDING OF CYPROHEPTADINE-N-METHYL-14C BY HUMAN BLOOD PLATELETS: INHIBITION BY PHENOTHIAZINES AND TRICYCLIC ANTIDEPRESSANTS.
156647 04-13

HUMAN CHORIONIC GONADOTROPHIN (PREGNYL) IN THE TREATMENT OF NOCTURNAL ENURESIS.
158013 04-13

EFFECTS OF CHLORDIAZEPOXIDE ALONE AND IN COMBINATION WITH AMPHETAMINE ON ANIMAL AND HUMAN BEHAVIOR.
158283 04-14

GROWTH OF SUCKLING RATS AFTER TREATMENT WITH DEXAMETHASONE OR CORTISOL: IMPLICATIONS FOR STEROID THERAPY IN HUMAN INFANTS.
159355 04-03

EFFECT OF BENZODIAZEPINES ON UPTAKE AND EFFLUX OF SEROTONIN IN HUMAN BLOOD PLATELETS IN VITRO.
160473 04-13

A DIMETHYLTRYPTAMINE FORMING ENZYME IN HUMAN BLOOD.
161892 04-17

AXONAL TRANSPORT OF DOPAMINE-BETA-HYDROXYLASE BY HUMAN SURAL NERVES IN VITRO.
162880 04-13

BENZODIAZEPINES AND HUMAN SLEEP.
165642 04-14

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: III. THE EFFECTS OF AMITRIPTYLINE.
166723 04-14

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: II. THE EFFECTS OF RESERPINE.
166724 04-14

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: I. METHODOLOGY AND THE EFFECTS OF PLACEBO.
166725 04-14

POTENTIATING EFFECT OF CHLORPROMAZINE ON GLYCERYL GUAIACOLATE ETHER INDUCED HEMOLYSIS OF RAT, DOG AND HUMAN BLOOD IN VITRO.
166790 04-13

ANIMAL PHARMACOLOGY AND HUMAN PSYCHOPHARMACOLOGY OF 3-METHOXY-4,5 METHYLENEDIOXYPHENYLISOPROPYLAMINE (MMDA).
167041 04-01

HUMANS

EFFECT OF LITHIUM ON COMBATIVE BEHAVIOR IN HUMANS.
162364 04-14

HUNGER

PRIMARY POLYURIA ACCOMPANIES HUNGER ELICITED BY INTRAHYPOTHALAMIC INJECTION OF NORADRENALINE.
156815 04-03

HYDRATION

AFLATOXIN-B1 AND PHENOBARBITAL INDUCIBLE AFLATOXIN-DELTA2 HYDRATION BY RAT LIVER MICROSOMES.
152165 04-03

HYDROCORTISONE

SEVERE INFECTIOUS HEPATITIS COMPLICATED WITH ACUTE PSYCHOSIS DURING HYDROCORTISONE TREATMENT.
151380 04-11

HYDROMORPHONE
RESPIRATORY EFFECTS OF HYDROMORPHONE IN MAN.
151156 04-15

HYDROXYINDOLE-O-METHYLTRANSFERASE
THE ACTIVATION OF PINEAL HYDROXYINDOLE-O-METHYLTRANSFERASE BY PSYCHOTOMIMETIC DRUGS.
165999 04-03

HYDROXYLAMINES
CHLORPROMAZINE HYDROXYLAMINES IN RED BLOOD CELLS AS MAJOR METABOLITES OF CHLORPROMAZINE IN MAN.
151633 04-13

METABOLISM OF AMITRIPTYLINE, NORTRIPTYLINE, IMIPRAMINE AND DESIPRAMINE TO YIELD HYDROXYLAMINES.
156762 04-01

HYDROXYLASE
SIMULTANEOUS MEASUREMENT OF TYROSINE AND TRYPTOPHAN HYDROXYLASE ACTIVITIES IN BRAIN IN VIVO USING AN INHIBITOR OF THE AROMATIC AMINO ACID DECARBOXYLASE.
150402 04-03

EFFECTS OF MORPHINE ON CATECHOLAMINE TURNOVER, CYCLIC 3,5 AMP CONCENTRATIONS AND TYROSINE HYDROXYLASE ACTIVITY IN RAT TISSUES. (UNPUBLISHED PAPER).
152549 04-03

ADRENAL AND STRIATAL TYROSINE HYDROXYLASE ACTIVITY AFTER METHAMPHETAMINE.
156644 04-03

ON THE REGULATION OF TRYPTOPHAN HYDROXYLASE IN BRAIN. (UNPUBLISHED PAPER).
158182 04-03

HYDROXYLASES
CEREBRAL HYDROXYLASES: STIMULATION BY A NEW FACTOR.
149650 04-03

HYDROXYLATED
EFFECTS OF AMPHETAMINE AND ITS HYDROXYLATED METABOLITES ON CENTRAL NORADRENERGIC MECHANISMS.
157118 04-03

HYDROXYLATION
AMPHETAMINE-INDUCED INHIBITION OF TYROSINE HYDROXYLATION IN HOMOGENATES OF RAT CORPUS-STRIATUM.
166000 04-03

HYDROXYQUINOLINES
THE NEUROTOXICITY OF THE HALOGENATED HYDROXYQUINOLINES: A COMMENTARY.
156069 04-15

HYDROXYZINE
THE USE OF HYDROXYZINE (VISTARIL) IN THE TREATMENT OF ANXIETY NEUROSIS.
155792 04-10

HYPERACTIVE
THE EFFECT OF A STIMULANT DRUG (METHAMPHETAMINE) ON COGNITIVE IMPULSIVITY, PLANNING, NEW LEARNING, AND SOCIAL BEHAVIOR IN HYPERACTIVE CHILDREN. (PH.D. DISSERTATION).
149717 04-14

FACTORS INFLUENCING THE SUPPRESSANT EFFECTS OF TWO STIMULANT DRUGS ON THE GROWTH OF HYPERACTIVE CHILDREN.
151592 04-15

LITHIUM CARBONATE IN THE TREATMENT OF HYPERACTIVE CHILDREN.
156155 04-11

EFFECTS OF DRUG-INDUCED BEHAVIOR CHANGES IN HYPERACTIVE CHILDREN ON MATERNAL ATTITUDE AND PERSONALITY. (PH.D. DISSERTATION).
159130 04-14

REDUCTION OF HYPERACTIVE BEHAVIOR BY CONDITIONING PROCEDURES ALONE AND COMBINED WITH METHYLPHENIDATE (RITALIN).
161049 04-14

HYPERACTIVITY
THE EFFECT OF DL-PROPRANOLOL, D-PROPRANOLOL AND PRACTOLOL ON THE HYPERACTIVITY INDUCED IN RATS BY PROLONGED ISOLATION.
157040 04-04

AMPHETAMINE AS A MODEL FOR HYPERACTIVITY IN THE RAT.
160583 04-04

DRUG TREATMENT OF HYPERACTIVITY IN CHILDREN.
160694 04-14

EFFECTS OF REPEATED ADMINISTRATION OF DL-AMPHETAMINE AND METHAMPHETAMINE ON TOLERANCE TO HYPERACTIVITY.
162959 04-04

HYPERGLYCEMIC
HYPERGLYCEMIC MECHANISMS OF CERTAIN PHENOTHIAZINE ANALOGS. (PH.D. DISSERTATION).
159828 04-03

HYPERKINETIC
IMIPRAMINE FOR THE HYPERKINETIC SYNDROME.
157362 04-11

HELP FOR THE HYPERKINETIC CHILD IN SCHOOL.
158345 04-11

EFFECTS OF RITALIN ON HYPERKINETIC CHILDREN ATTENDING THE GLENDALE ELEMENTARY SCHOOLS. (ED.D. DISSERTATION).
162069 04-11

HYPERPYREXIA
RIGIDITY, HYPERPYREXIA AND COMA FOLLOWING FLUPHENAZINE ENANTHATE.
150669 04-15

HYPERPYREXIA FROM DRUG COMBINATIONS.
160965 04-15

HYPERPYREXIC
DISSOCIATION OF EXCITATORY AND HYPERPYREXIC EFFECTS OF LSD IN RATS TREATED WITH ALPHA-METHYLTYROSINE.
166732 04-03

HYPERTENSION
THE USE OF PROPRANOLOL IN THE TREATMENT OF HYPERTENSION.
158356 04-17

HYPERTENSIVE
NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS.
160854 04-04

HYPERTHERMIA
HYPERTHERMIA AND THE AMPHETAMINE AGGREGATION PHENOMENON: ABSENCE OF A CAUSAL RELATION.
155909 04-03

MUTISM AND HYPERTHERMIA IN A PATIENT TREATED WITH NEUROLEPTICS.
163202 04-15

HYPNOSIS
POSSIBLE MECHANISM OF PILOCARPINE POTENTIATION OF HEXOBARBITAL HYPNOSIS IN MICE.
158477 04-03

HYPNOTIC
THE INTERACTION OF DELTA9-TETRAHYDROCANNABINOL PRETREATMENT WITH VARIOUS SEDATIVE HYPNOTIC DRUGS.
150302 04-04

DRUG THERAPY: HYPNOTIC DRUGS.
150829 04-17

A DOUBLE-BLIND CLINICAL TRIAL OF THE NEW HYPNOTIC MANDRAX.
156359 04-07

HYPNOTIC EFFECT OF 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA) IN EXPERIMENTALLY INDUCED INSOMNIA AND BRAIN SEROTONIN IN RATS.
158504 04-04

CONTROLLED EVALUATION OF FLURAZEPAM HYDROCHLORIDE, A NEW NONBARBITURATE HYPNOTIC.
159473 04-07

PHARMACOKINETICS AND METABOLISM OF THE HYPNOTIC NITRAZEPAM.
160467 04-13

MEBUTAMATE AS A HYPNOTIC: CLINICAL TRIAL AND STATISTICAL CONSIDERATIONS.
166722 04-13

HYPNOTICS
SLEEP INSURANCE: A VALID USE OF HYPNOTICS
150327 04-17

MINOR TRANQUILIZERS, HYPNOTICS, AND SEDATIVES.
155058 04-17

POISONING BY THE BARBITURATES, AND A VARIETY OF HYPNOTICS AND SEDATIVES.
155753 04-15

HYPOPHYSECTOMIZED
TRH: ENHANCEMENT OF DOPA ACTIVITY IN NORMAL INTACT, HYPOPHYSECTOMIZED AND THYROIDECTOMIZED ANIMALS.
155252 04-03

HYPOTENSIVE
DESMETHYLIMIPRAMINE AND THE HYPOTENSIVE ACTION OF CLONIDINE IN THE RABBIT.
152142 04-03

SIDE-EFFECTS OF HYPOTENSIVE AGENTS EVALUATED BY A SELF-ADMINISTERED QUESTIONNAIRE.
162720 04-13

HYPOTHALAMIC
PHARMACOLOGICAL STUDIES ON THE HYPOTHALAMUS (REPORT 7). CONDITIONING OF HYPOTHALAMIC BEHAVIORAL RESPONSES AND EFFECTS OF PSYCHOTROPIC DRUGS.
158488 04-04

THE EFFECTS OF HYPOTHALAMIC IMPLANTS OF ALDOSTERONE, ANGIOTENSIN II, CARBACOL, NOREPINEPHRINE, AND NACL ON WATER AND NACL INTAKE IN NORMAL AND ADRENALECTOMIZED RATS.
159391 04-04

EFFECTS OF VENTROMEDIAL HYPOTHALAMIC LESIONS ON CONDITIONED SUCROSE AVERSIONS IN RATS.
162673 04-02

HYPOTHALAMUS
SYNAPTIC ALTERATIONS IN THE RABBIT HYPOTHALAMUS FOLLOWING LONG-TERM ADMINISTRATION OF HALOPERIDOL.
150398 04-05

SYNAPTIC ALTERATIONS IN THE HYPOTHALAMUS OF THE RABBIT FOLLOWING LONG-TERM CHLORPROMAZINE ADMINISTRATION.
152028 04-05

PHARMACOLOGICAL STUDIES ON THE HYPOTHALAMUS (REPORT 7). CONDITIONING OF HYPOTHALAMIC BEHAVIORAL RESPONSES AND EFFECTS OF PSYCHOTROPIC DRUGS.
158488 04-04

HYPOTHERMIA
CONTROL OF MORPHINE WITHDRAWAL HYPOTHERMIA BY CONDITIONAL STIMULI.
153098 04-03

HYPOTHERMIC
ATTENUATION OF HYPOTHERMIC RETROGRADE AMNESIA PRODUCED BY PHARMACOLOGIC BLOCKAGE OF BRAIN SEIZURES.
157125 04-04

THE HYPOTHERMIC EFFECT OF L-DOPA IN THE RAT.
160769 04-03

HYPOXIA
DOPA REVERSAL OF HYPOXIA INDUCED DISRUPTION OF THE CONDITIONED AVOIDANCE RESPONSE.
155904 04-04

EVIDENCE FOR CATECHOLAMINE INVOLVEMENT IN THE SUPPRESSION OF LOCOMOTOR ACTIVITY DUE TO HYPOXIA.
163802 04-03

HYSTERIA
THE USE OF LSD IN THE PSYCHOANALYTIC TREATMENT OF A CASE OF ANXIETY HYSTERIA.
156920 04-10

H3-NOREPINEPHRINE
INTERACTION OF COCAINE AND IPRONIAZID ON THE H3-NOREPINEPHRINE UPTAKE MECHANISM ON ISOLATED STRIP VENTRICLE OF FROG HEART.
165412 04-03

IDENTIFICATION
CACTUS ALKALOIDS XVI: ISOLATION AND IDENTIFICATION OF ALKALOIDS IN CORYPHANTHA-RAMILLOSA.
150412 04-01

CANNABIS-SATIVA L. (MARIJUANA) II: STANDARDIZED AND RELIABLE MICROSCOPIC METHOD FOR DETECTION AND IDENTIFICATION OF MARIJUANA.
150419 04-01

IDENTIFICATION OF 5-(3,4 DIHYDROXYPHENYL)-5 PHENYLHYDANTOIN AS A METABOLITE OF 5,5 DIPHENYLHYDANTOIN (PHENYTOIN) IN RATS AND MAN.
156650 04-06

THE IDENTIFICATION, PROPERTIES AND ANALYSIS OF N-HYDROXYAMPHETAMINE -- A METABOLITE OF AMPHETAMINE.
156761 04-01

METABOLISM OF AMPHETAMINES. IDENTIFICATION OF N-OXYGENATED PRODUCTS BY GAS CHROMATOGRAPHY AND MASS SPECTROMETRY.
165998 04-06

IDIOPATHIC
PERMANENT DEMENTIA IN IDIOPATHIC PARKINSONISM TREATED WITH LEVODOPA.
166033 04-15

ILL
RELIEVING PAIN IN THE TERMINALLY ILL.
162311 04-11

THE EFFECTS OF ANTIDEPRESSANT DRUGS ON PAIN RELIEF AND MOOD IN THE CHRONICALLY ILL: A DOUBLE-BLIND STUDY.
163331 04-11

LOXAPINE: A SIX-MONTH EVALUATION IN SEVERELY ILL SCHIZOPHRENIC PATIENTS.
163680 04-08

ILLNESS
LITHIUM IN MANIC-DEPRESSIVE ILLNESS.
150437 04-09

LEVODOPA AND MENTAL ILLNESS.
150953 04-13

METABOLISM, ANTICHOLINERGIC EFFECTS, AND THERAPEUTIC OUTCOME OF DESMETHYLIMIPRAMINE IN DEPRESSIVE ILLNESS.
153121 04-09

AN EVALUATION OF CONTINUATION THERAPY WITH TRICYCLIC ANTIDEPRESSANTS IN DEPRESSIVE ILLNESS.
162636 04-09

ESTIMATION OF BRAIN AMINE METABOLISM IN AFFECTIVE ILLNESS: CEREBROSPINAL FLUID STUDIES UTILIZING PROBENECID.
164871 04-11

IMICLOPAZINE
COMPARATIVE TRIAL OF IMICLOPAZINE, TPN-12 PIMOZIDE AND TRIFLUPERIDOL IN SCHIZOPHRENIA.
156563 04-08

IMIDAZOLINE
CHARACTERISTICS OF ABNORMAL BEHAVIOR INDUCED BY 2-(2,6 DICHLOROPHENYLAMINO)-2 IMIDAZOLINE (ST-155) IN MICE.
158494 04-04

IMIDAZOLINONE
SYNTHESIS AND CNS DEPRESSANT ACTIVITY OF IMIDAZOLINONE GLYOXYLATES.
150415 04-02

IMIDAZOLONE
INTERACTION OF THE IMIDAZOLONE DERIVATIVE GPA-1851 WITH HEPATIC MICROSOMAL DRUG METABOLISM.
151906 04-03

IMIPRAMINE
INTERACTION OF OXOTREMORINE WITH ATROPINE, CHLORPROMAZINE, CYPROHEPTADINE, IMIPRAMINE AND PHENOXYBENZAMINE ON THE FLEXOR REFLEX OF THE CHRONIC SPINAL DOG.
150318 04-03

CATECHOLAMINE CONCENTRATIONS IN DISCRETE AREAS OF THE RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
151629 04-03

THE CLINICAL PHARMACOLOGY OF IMIPRAMINE: IMPLICATIONS FOR THERAPEUTICS.
156157 04-15

NEUROCHEMICAL TERATOLOGY: 5-HYDROXYINDOLE CONCENTRATIONS IN DISCRETE AREAS OF RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
156751 04-03

METABOLISM OF AMITRIPTYLINE, NORTRIPTYLINE, IMIPRAMINE AND DESIPRAMINE TO YIELD HYDROXYLAMINES.
156762 04-01

IMIPRAMINE FOR THE HYPERKINETIC SYNDROME.
157362 04-11

SPONTANEOUS MOTOR ACTIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL MOTOR ACTIVITY AND SENSORY ACTIVITY.
158486 04-04

AUDITORY SENSITIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL SENSORY ACTIVITY AND SPONTANEOUS MOTOR ACTIVITY.
158487 04-03

UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE.
158771 04-03

LITHIUM CARBONATE AND IMIPRAMINE IN PREVENTION OF AFFECTIVE EPISODES.
159778 04-09

THE EFFECT OF IMIPRAMINE ADMINISTERED BEFORE AND DURING PREGNANCY ON LITTER SIZE IN THE RAT.
163772 04-03

CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE: STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER).
166960 04-09

IMIPRAMINE-N-OXIDE
CLINICAL EVALUATION OF IMIPRAMINE-N-OXIDE (IPNO) IN THE TREATMENT OF DEPRESSIVE STATES.
154979 04-09

IMMUNE
STUDIES ON THE EFFECT OF TRANQUILIZING DRUGS ON THE IMMUNE RESPONSE.
161389 04-05

IMMUNOLOGIC
THE RELEVANCE OF IMMUNOLOGIC STUDIES ON EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) TO CLINICAL INVESTIGATIONS ON MULTIPLE SCLEROSIS. (UNPUBLISHED PAPER).
152545 04-03

IMPAIRMENT
DECREASED SENSITIVITY OF SEPTAL MICE TO IMPAIRMENT OF TWO-WAY AVOIDANCE BY CHLORPROMAZINE.
150350 04-04

IMPAIRMENT OF LATENT LEARNING IN THE RAT BY A MARIHUANA COMPONENT.
154814 04-04

IMPAIRMENT OF PERFORMANCE WITH LOW DOSES OF MARIHUANA.
166720 04-14

IMPASSE
PSYCHOPHARMACOLOGICAL STUDY OF SCHIZOPHRENIA -- SOME WAYS OUT OF AN IMPASSE.
160219 04-17

IMPLANTATION
THE USE OF D-AMPHETAMINE PELLET IMPLANTATION AS A MODEL FOR D-AMPHETAMINE TOLERANCE IN THE MOUSE.
157038 04-03

IMPLANTS
THE EFFECTS OF HYPOTHALAMIC IMPLANTS OF ALDOSTERONE, ANGIOTENSIN II, CARBACOL, NOREPINEPHRINE, AND NACL ON WATER AND NACL INTAKE IN NORMAL AND ADRENALECTOMIZED RATS.
159391 04-04

IMPLICATED
ROLE OF MONOAMINES IN THE PSYCHOPATHOLOGY OF MOTORICITY: IMPLICATED NEURAL CIRCUITS IN THE PSYCHOPATHOLOGY OF PARKINSONIAN SYNDROMES.
150219 04-11

IMPLICATION
INTERACTION OF STRESS AND PSYCHOTOMIMETIC DRUG ACTION: POSSIBLE IMPLICATION FOR PSYCHOSIS.
157042 04-04

IMPLICIT
HAZARDS IMPLICIT IN PRESCRIBING PSYCHOACTIVE DRUGS.
158625 04-17

IMPORTANT
DISRUPTION OF DISSOCIATED LEARNING IN A DISCRIMINATION PARADIGM BY EMOTIONALLY IMPORTANT STIMULI.
157044 04-04

IMPROVEMENT
EFFECT OF MAGNESIUM PEMOLINE AND METHYLPHENIDATE ON MEMORY IMPROVEMENT AND MOOD IN NORMAL AGING SUBJECTS.
153054 04-14

IMPROVING
IMPROVING SCHEDULING AND REDUCING COSTS OF PSYCHOTROPIC DRUGS FOR OUTPATIENTS.
157291 04-17

IMPULSIVITY
THE EFFECT OF A STIMULANT DRUG (METHAMPHETAMINE) ON COGNITIVE IMPULSIVITY, PLANNING, NEW LEARNING, AND SOCIAL BEHAVIOR IN HYPERACTIVE CHILDREN. (PH.D. DISSERTATION).
149717 04-14

INACTIVITY
INACTIVITY OF DELTA9-TETRAHYDROCANNABINOL IN ANTIDEPRESSANT SCREENING TESTS.
157142 04-03

INBRED
MEMORY STORAGE IN THREE INBRED MOUSE STRAINS AFTER INJECTION OF CYCLOHEXIMIDE.
153042 04-04

FACTORS INVOLVED IN ETHANOL NARCOSIS: ANALYSIS IN MICE OF THREE INBRED STRAINS.
159567 04-03

INCREASE
DIFFERENTIAL EFFECTS OF AMPHETAMINE, FENFLURAMINE AND NORFENFLURAMINE STEREOISOMERS ON THE INCREASE OF STRIATUM HOMOVANILLIC ACID IN RATS.
156759 04-03

INCREASE OF BRAIN LEVELS OF TRYPTOPHAN INDUCED BY INHIBITION OF DOPAMINE BETA-HYDROXYLASE (EC 1.14.2.1).
160230 04-01

INCREASE IN MOUSE AND RAT BRAIN ACETYLCHOLINE LEVELS BY DIAZEPAM.
160475 04-03

INCREASES
DRUGS AND PUNISHED RESPONDING II: D-AMPHETAMINE INDUCED INCREASES IN PUNISHED RESPONDING.
162325 04-04

INCUBATED
UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE.
158771 04-03

INCUBATION
ROLE OF ADRENAL HORMONES IN INCUBATION BEHAVIOR OF MALE RING DOVES (STREPTOPELIA-RISORIA).
162667 04-03

INDEPENDENT
RITALIN AS THE INDEPENDENT VARIABLE IN A REVERSAL DESIGN. (PH.D. DISSERTATION).
163512 04-16

INDIVIDUAL
GROUP TOXICITY AND INDIVIDUAL TOXICITY -- THE SIZE OF A GROUP AND PHARMACOLOGICAL EFFECTS.
154994 04-05

INDOLE
SYNTHESIS OF INDOLE ISOSTERES.
156876 04-01

INVOLVEMENT OF BIOGENIC AMINES IN MEMORY FORMATION: THE CENTRAL NERVOUS SYSTEM INDOLE AMINE INVOLVEMENT.
162272 04-03

INDOLEALKYLAMINES
THE METABOLISM OF INDOLEALKYLAMINES BY TYPE A AND B MONOAMINE OXIDASE OF BRAIN. (UNPUBLISHED PAPER).
160457 04-03

INDOLEAMINE
MONOAMINE PRECURSORS AND INDOLEAMINE METABOLISM IN DEPRESSION.
158500 04-09

INDONESIA
TREATMENT OF AMBULATORY NEUROTIC PATIENTS WITH WY-4036, JAKARTA, INDONESIA.
152342 04-10

INDUCED
THE EFFECTS OF INDUCED NAUSEA UPON SHOCK ELICITED AGGRESSION.
150264 04-04

EMOTIONALLY INDUCED CARDIOVASCULAR CHANGES IN MAN AS A MEANS FOR THE INVESTIGATION OF TRANQUILLIZING DRUGS.
150323 04-13

PROPRANOLOL ANTAGONISM OF MARIHUANA INDUCED TACHYCARDIA.
150404 04-15

BLOCKADE OF D-AMPHETAMINE INDUCED STEREOTYPED BEHAVIOR BY BULBOCAPNINE.
150405 04-04

FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION.
150424 04-03

DOPAMINE AND NORADRENALINE RECEPTOR STIMULATION: REVERSAL OF RESERPINE INDUCED SUPPRESSION OF MOTOR ACTIVITY.
150664 04-03

BEHAVIOURAL AND PHARMACOLOGICAL STUDIES ON MORPHINE INDUCED EXCITATION OF RATS. POSSIBLE RELATION TO BRAIN CATECHOLAMINES.
150667 04-04

PHARMACOLOGICAL MODIFICATIONS OF THE 6-HYDROXYDOPA INDUCED DEGENERATION OF CENTRAL NORADRENALINE NEURONS.
151350 04-03

EFFECTS OF L-TRYPTOPHAN, L-3,4,DIHYDROXYPHENYLALANINE AND TRANYLCYPROMINE ON THE ELECTROENCEPHALOGRAM AND ON PHOTICALLY INDUCED EPILEPSY IN THE BABOON, PAPIO-PAPIO.
152044 04-03

SCRATCHING RESPONSE INDUCED IN MICE BY MESCALINE AND RELATED AMPHETAMINE DERIVATIVES.
152431 04-04

THE EFFECTS OF SPREADING DEPRESSION ON PENICILLIN INDUCED EPILEPTIFORM ACTIVITY IN RAT BRAIN.
152438 04-05

PHENOTHIAZINE INDUCED T-WAVE ABNORMALITIES: EFFECTS OF OVERNIGHT FASTING.
152961 04-15

COMPARISON OF AMANTADINE, ORPHENADRINE, AND PLACEBO IN THE CONTROL OF PHENOTHIAZINE INDUCED PARKINSONISM.
153122 04-15

DEVELOPMENT AND CHARACTERISTICS OF THE HISTAMINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RABBIT CEREBRAL CORTEX. (UNPUBLISHED PAPER).
154372 04-03

STUDIES OF ENZYMES AND MODULATORS IN SHOCK INDUCED FIGHTING.
155245 04-04

APOMORPHINE INDUCED AGGRESSION: CHARACTERISTICS, PHARMACOLOGICAL INTERVENTION, AND SITE OF ACTION.
155246 04-03

T3 AND TSH RESPONSE TO TRH: NEWER ASPECTS OF LITHIUM INDUCED THYROID DISTURBANCE IN MAN.
155255 04-13

DOPA REVERSAL OF HYPOXIA INDUCED DISRUPTION OF THE CONDITIONED AVOIDANCE RESPONSE.
155904 04-04

BIPHASIC ACTION OF 5-HYDROXYTRYPTAMINE INHIBITOR ON FENFLURAMINE INDUCED ANOREXIA.
156804 04-03

BLOCKADE BY BUFOTENIDINE OF THE SEROTONIN AND NARCOTIC ANALGESICS INDUCED CONTRACTION OF DOG INTESTINE IN VIVO.
156825 04-03

PARAMAGNETIC ION INDUCED SHIFTS IN THE NMR SPECTRA OF RESERPINE AND METHYL 3,4,5 TRIMETHOXYBENZOATE.
156867 04-06

THE EFFECT OF DL-PROPRANOLOL, D-PROPRANOLOL AND PRACTOLOL ON THE HYPERACTIVITY INDUCED IN RATS BY PROLONGED ISOLATION.
157040 04-04

POSSIBLE CATECHOLAMINE MEDIATION OF LEVALLORPHAN INDUCED BEHAVIOURAL DISRUPTION IN RATS.
157041 04-04

THE ROLE OF DOPAMINE AND NOREPINEPHRINE IN THE NALOXONE INDUCED ABSTINENCE OF MORPHINE DEPENDENT MICE.
157116 04-03

MARIJUANA INDUCED STATE-DEPENDENT VERBAL LEARNING.
157153 04-14

EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING.
158000 04-04

ALTERATION OF ETHANOL INDUCED CNS DEPRESSION: INEFFECTIVENESS OF DRUGS THAT MODIFY CHOLINERGIC TRANSMISSION. (UNPUBLISHED PAPER).
158058 04-04

COMPARATIVE STUDY OF THE EFFICACY OF DIAZEPAM, PENTOBARBITAL, AND FENTANYL-DROPERIDOL (THALAMONAL) AGAINST TOXICITY INDUCED BY LOCAL ANESTHETICS IN MICE.
158304 04-05

CHARACTERISTICS OF ABNORMAL BEHAVIOR INDUCED BY 2-(2,6 DICHLOROPHENYLAMINO)-2 IMIDAZOLINE (ST-155) IN MICE.
158494 04-04

HYPNOTIC EFFECT OF 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA) IN EXPERIMENTALLY INDUCED INSOMNIA AND BRAIN SEROTONIN IN RATS.
158504 04-04

THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03

CONTRIBUTING PHARMACOLOGIC FACTORS IN MORPHINE INDUCED FETAL MALFORMATIONS (PH.D. DISSERTATION).
159483 04-03

INCREASE OF BRAIN LEVELS OF TRYPTOPHAN INDUCED BY INHIBITION OF DOPAMINE BETA-HYDROXYLASE (EC 1.14.2.1).
160230 04-01

THE ROLE OF BIOGENIC AMINES IN THE RESERPINE INDUCED ALTERATION OF MINIMAL ELECTROSHOCK SEIZURE THRESHOLDS IN THE MOUSE.
160639 04-03

NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS.
160854 04-04

SEX DIFFERENCES IN FIGHTING AND DEFENSE INDUCED IN RATS BY SHOCK AND D-AMPHETAMINE DURING MORPHINE ABSTINENCE.
161125 04-04

TREATMENT OF PSYCHOSIS SUBSEQUENT TO PHENOTHIAZINE INDUCED AGRANULOCYTOSIS.
161582 04-14

EFFECTS OF L-DOPA AND L-3-METHOXYTYROSINE ON D-METHAMPHETAMINE INDUCED MOTOR ACTIVITY AND SEIZURES INDUCED BY ELECTROSHOCK (37475).
162046 04-03

INHIBITION OF MORPHINE INDUCED PITUITARY ADRENAL ACTIVATION BY DEXAMETHASONE IN THE FEMALE RAT (37506).
162049 04-03

DIFFERENTIAL EFFECTS OF RESERPINE AND ALPHA-METHYL-P-TYROSINE ON NOREPINEPHRINE AND DOPAMINE INDUCED BEHAVIORAL ACTIVITY.
162277 04-04

MORPHINE INDUCED SACCHARIN AVERSION IN ALPHA-METHYLTYROSINE PRETREATED RATS.
162279 04-03

DRUGS AND PUNISHED RESPONDING II: D-AMPHETAMINE INDUCED INCREASES IN PUNISHED RESPONDING.
162325 04-04

ADENYL CYCLASE ACTIVITY IN KIDNEYS OF RATS WITH LITHIUM INDUCED POLYURIA.
163320 04-03

PHENOBARBITAL INDUCED FATTY LIVERS IN THE RAT.
163637 04-05

EVIDENCE FOR NONINVOLVEMENT OF CENTRAL CATECHOLAMINES IN COPPER ACETATE INDUCED OVULATION.
163797 04-03

INFLUENCE OF AMPHETAMINES, PROTRIPTYLINE AND PARGYLINE ON THE TIME COURSE OF THE NOREPINEPHRINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RAT BRAIN.
165790 04-03

OLFACTORY FOREBRAIN SEIZURES INDUCED BY METHAMPHETAMINE AND DISULFIRAM.
166064 04-03

LITHIUM INDUCED POLYDIPSIA AND POLYURIA: MECHANISM OF ACTION
166071 04-13

THE EFFECT OF GEROVITAL-H3 ON THE GROWTH RATE OF AGED MOUSE EMBRYO FIBROBLASTS AND ON THE PATHOGENESIS INDUCED BY A RNA C-TYPE VIRUS.
166387 04-03

A LEAD INDUCED BEHAVIORAL DISORDER.
166785 04-05

POTENTIATING EFFECT OF CHLORPROMAZINE ON GLYCERYL GUAIACOLATE ETHER INDUCED HEMOLYSIS OF RAT, DOG AND HUMAN BLOOD IN VITRO.
166790 04-13

INDUCIBLE

AFLATOXIN-B1 AND PHENOBARBITAL INDUCIBLE AFLATOXIN-DELTA2 HYDRATION BY RAT LIVER MICROSOMES.
152165 04-03

INDUCTION

USE OF ORAL DDT IN THREE HUMAN BARBITURATE INTOXICATIONS: HEPATIC ENZYME INDUCTION BY RECIPROCAL DETOXICANTS.
155205 04-15

DIGITOXIGENIN METABOLISM BY RAT LIVER MICROSOMES AND ITS INDUCTION BY PHENOBARBITAL.
160200 04-03

EFFECT OF PHENOBARBITAL INDUCTION ON GALACTOSE ELIMINATION CAPACITY IN THE RAT.
160799 04-03

INDUSTRIAL

DISCUSSION OF A SURVEY OF ACADEMIC AND INDUSTRIAL SCIENTISTS ON TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167109 04-17

INEFFECTIVENESS

ALTERATION OF ETHANOL INDUCED CNS DEPRESSION: INEFFECTIVENESS OF DRUGS THAT MODIFY CHOLINERGIC TRANSMISSION. (UNPUBLISHED PAPER).
158058 04-04

INFANT

DRUG DISPOSITION IN THE FETUS AND NEWBORN INFANT.
159352 04-11

INFANTS

ELIMINATION KINETICS OF AMOBARBITAL IN MOTHERS AND THEIR NEWBORN INFANTS.
151163 04-13

GROWTH OF SUCKLING RATS AFTER TREATMENT WITH DEXAMETHASONE OR CORTISOL: IMPLICATIONS FOR STEROID THERAPY IN HUMAN INFANTS.
159355 04-03

INFECTIOUS

SEVERE INFECTIOUS HEPATITIS COMPLICATED WITH ACUTE PSYCHOSIS DURING HYDROCORTISONE TREATMENT.
151380 04-11

INFLUENCE

INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04

THE INFLUENCE OF SOUND PRESSURE LEVEL UPON THE POTENCY OF PHENOBARBITONE SODIUM AND MEPROBAMATE AGAINST AUDIOGENIC SEIZURES IN MICE.
151591 04-04

THE INFLUENCE OF L-DOPA ON PHYSICAL TREATMENT OF PARKINSONISM.
151694 04-11

THE INFLUENCE OF METHAMPHETAMINE AND DIAZEPAM ON THE AMPLITUDE CHANGES OF THE ACHILLES TENDON AND HOFFMANN REFLEX DURING A MENTAL TASK.
152074 04-14

INFLUENCE OF LITHIUM CARBONATE ON PATIENTS WITH TEMPORAL EPILEPSY.
153614 04-11

INFLUENCE OF CHANGES IN ADRENERGIC AND CHOLINERGIC ACTIVITY UPON ACQUISITION OF OPERANT DISCRIMINATION IN ALBINO RATS.
154639 04-04

THE INFLUENCE OF P-CHLOROPHENYLALANINE ON THE EFFECT OF 5-HYDROXYTRYPTOPHAN ON SPINAL SYNAPTIC ACTIVITY IN CHRONIC SPINAL AND RESERPINIZED CATS.
154959 04-03

THE INFLUENCE OF PSYCHOTROPIC DRUGS ON THE GENETIC CELL MATERIAL.
156569 04-15

INFLUENCE OF TIZERTSINE AND TRIFLUOPERAZINE ON MOBILITY OF MAIN NERVOUS PROCESSES IN PATIENTS WITH PRESENILE PSYCHOSIS.
156588 04-11

INFLUENCE OF 5,6-DIHYDROXYTRYPTAMINE ON MORPHINE TOLERANCE AND PHYSICAL DEPENDENCE.
156822 04-03

INFLUENCE OF 6-HYDROXYDOPAMINE ON THE EFFECT OF MORPHINE ON THE TAIL-FLICK LATENCY.
157146 04-04

LABOR DIVISION OF RATS UNDER THE INFLUENCE OF PROLONGED ADMINISTRATION OF (-)DELTA9-TRANS-TETRAHYDROCANNABINOL.
157181 04-04

INFLUENCE OF LITHIUM CARBONATE ON THE ELECTROENCEPHALOGRAM.
158330 04-13

THE INFLUENCE OF SYNTHETIC SUBSTANCE P ON TREMOR CAUSED BY LSD IN MICE.
161143 04-03

INFLUENCE OF SOME PSYCHOACTIVE DRUGS ON MINERAL METABOLISM IN MAN.
161388 04-08

INFLUENCE OF ANTICHOLINERGIC ANTIPARKINSONIAN AGENTS ON THE EFFECTS OF NARCOANALGESIC DRUGS IN THE RAT.
162057 04-03

INFLUENCE OF QUIPAZINE, A POTENTIAL ANTIPARKINSONIAN AGENT ON THE UPTAKE OF 3H-DOPAMINE AND 3H-SEROTONIN INTO RAT STRIATAL TISSUE IN VITRO.
163793 04-03

INFLUENCE OF AMPHETAMINES, PROTRIPTYLINE AND PARGYLINE ON THE TIME COURSE OF THE NOREPINEPHRINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RAT BRAIN.
165790 04-03

THE INFLUENCE OF PROBENECID ON THE METABOLISM OF SEROTONIN, DOPAMINE AND THEIR PRECURSORS IN MAN.
166726 04-13

NEW INVESTIGATIONS INTO BIOGENIC AMINES (CEREBRAL OR CELLULAR LOCALIZATION, INFLUENCE OF VARIOUS CHEMICAL FACTORS).
167085 04-03

INFLUENCES
CHEMICAL INFLUENCES ON BEHAVIOUR.
150155 04-15

INFLUENCING
FACTORS INFLUENCING THE SUPPRESSANT EFFECTS OF TWO STIMULANT DRUGS ON THE GROWTH OF HYPERACTIVE CHILDREN.
151592 04-15

INFORMATION
THE RESEARCH PLAN REPORT: REVISED FORM AND INFORMATION RETRIEVAL SYSTEM.
155277 04-17

OVERDOSAGE AND/OR POISONING -- THE INFORMATION GAP.
156641 04-15

SIGNIFICANCE OF INFORMATION ON PATIENTS AND PERSONNEL EVALUATED AFTER 5000 SERUM LITHIUM VALUES.
166983 04-17

INFUSION
LACTATE INFUSION IN THE TREATMENT OF FREE-FLOATING ANXIETY.
153608 04-10

FIXED-INTERVAL SCHEDULE OF COCAINE REINFORCEMENT: EFFECT OF DOSE AND INFUSION DURATION.
155411 04-04

INFUSIONS
SHORT-TERM EFFECTS OF ADAMANTYLAMINE SULFATE INFUSIONS IN PARKINSON PATIENTS.
152111 04-11

INGESTION
CONCENTRATION INGESTION RELATIONS OF MORPHINE ADULTERATED FOOD AND MORPHINE SOLUTION.
150321 04-06

LITHIUM AND PREGNANCY - III, LITHIUM INGESTION BY CHILDREN BREAST-FED BY WOMEN ON LITHIUM TREATMENT.
155043 04-15

ACCIDENTAL INGESTION: METHADONE, PROPOXYPHENE (DARVON), OR DIPHENOXYLATE (LOMOTIL) POISONING.
161788 04-15

INHERITED
EPILEPSY IN INHERITED MENTAL AND MOTOR DISORDERS.
165193 04-13

INHIBITION
MODIFICATION OF LEVODOPA EFFECT BY SYSTEMIC DECARBOXYLASE INHIBITION.
150216 04-13

THE EFFECT OF AMANTADINE AND (_)- AMPHETAMINE ON MOTILITY IN RATS AFTER INHIBITION OF MONOAMINE SYNTHESIS AND STORAGE.
150354 04-04

FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION.
150424 04-03

INHIBITION OF BRAIN GLUTAMATE DEHYDROGENASE BY A METABOLITE OF CYCLOHEXIMIDE AND ITS RELEVANCE FOR THE MECHANISM OF AMMONIA FORMATION IN BRAIN SLICES. (UNPUBLISHED PAPER).
151650 04-03

REM SLEEP AND CENTRAL MONOAMINE OXIDASE INHIBITION.
152122 04-13

INHIBITION OF RENAL TUBULAR TRANSPORT OF MORPHINE BY DIETHYLAMINOETHANOL IN THE CHICKEN.
152162 04-03

INHIBITION OF BRAIN DOPAMINE-BETA-HYDROXYLASE ACTIVITY BY METHIMAZOLE.
156322 04-03

INHIBITION OF STIMULATED CEREBRAL RESPIRATION IN VITRO AND OXYGEN CONSUMPTION IN VIVO IN RATS TREATED BY CHOLINOLYTIC DRUGS.
156639 04-03

BINDING OF CYPROHEPTADINE-N-METHYL-14C BY HUMAN BLOOD PLATELETS: INHIBITION BY PHENOTHIAZINES AND TRICYCLIC ANTIDEPRESSANTS.
156647 04-13

INCREASE OF BRAIN LEVELS OF TRYPTOPHAN INDUCED BY INHIBITION OF DOPAMINE BETA-HYDROXYLASE (EC 1.14.2.1).
160230 04-01

POSSIBLE RATIONALE FOR PROCAINE (GEROVITAL-H3) THERAPY IN GERIATRICS: INHIBITION OF MONOAMINE OXIDASE.
160951 04-11

INHIBITION OF MORPHINE INDUCED PITUITARY ADRENAL ACTIVATION BY DEXAMETHASONE IN THE FEMALE RAT (37506).
162049 04-03

SLOW SYNAPTIC INHIBITION AND ADRENERGIC ANTAGONISM IN SYMPATHETIC GANGLION. (UNPUBLISHED PAPER)
162394 04-03

AMPHETAMINE-INDUCED INHIBITION OF TYROSINE HYDROXYLATION IN HOMOGENATES OF RAT CORPUS-STRIATUM.
166000 04-03

THE NATURE OF THE INHIBITION OF MONOAMINE OXIDASE PRODUCED BY GEROVITAL-H3.
166388 04-03

INHIBITION OF BOVINE BRAIN ALDEHYDE REDUCTASE BY ANTICONVULSANT COMPOUNDS IN VITRO.
166699 04-03

INHIBITION OF URIDINE INCORPORATION INTO RNA IN MAMMALIAN CELLS BY AGENTS AFFECTING THE PROPERTIES OF THE CELL MEMBRANE: CHLORPROMAZINE, DIPYRIDAMOLE AND PHENYLETHANOL.
166700 04-03

INHIBITOR
BRAIN CATECHOLAMINES AND THEIR METABOLITES IN PARKINSONIAN PATIENTS: TREATMENT WITH LEVODOPA ALONE OR COMBINED WITH A DECARBOXYLASE INHIBITOR.
150218 04-13

SIMULTANEOUS MEASUREMENT OF TYROSINE AND TRYPTOPHAN HYDROXYLASE ACTIVITIES IN BRAIN IN VIVO USING AN INHIBITOR OF THE AROMATIC AMINO ACID DECARBOXYLASE.
150402 04-03

COMPARISON OF L-DOPA WITH ITS ASSOCIATION WITH AN L-DOPA DECARBOXYLASE INHIBITOR IN THE MANAGEMENT OF PARKINSONS DISEASE.
150631 04-15

TREATMENT OF PARKINSONISM WITH L-DOPA AND DECARBOXYLASE INHIBITOR: AN ELECTROPHYSIOLOGICAL STUDY.
151688 04-11

TREATMENT OF PARKINSONISM WITH A COMBINATION OF LEVODOPA AND THE DECARBOXYLASE INHIBITOR RO-4-4602 (A COMPARISON WITH LEVODOPA TREATMENT ALONE).
151689 04-07

TREATMENT OF PARKINSONISM WITH A COMPOUND OF L-DOPA (LARODOPA) AND A DECARBOXYLASE INHIBITOR (RO-4-4602).
151691 04-11

PLASMA TESTOSTERONE CONTENT OF MALE PATIENTS WITH PARKINSONS DISEASE DURING L-DOPA TREATMENT WITH OR WITHOUT DOPADECARBOXYLASE INHIBITOR.
151695 04-15

BIPHASIC ACTION OF 5-HYDROXYTRYPTAMINE INHIBITOR ON FENFLURAMINE INDUCED ANOREXIA.
156804 04-03

ACETYLSECOHEMICHOLINIUM-3, A NEW CHOLINE ACETYLTRANSFERASE INHIBITOR USEFUL IN NEUROPHARMACOLOGICAL STUDIES.
156812 04-01

THE MONOAMINE OXIDASE INHIBITOR, PHENELZINE, IN THE TREATMENT OF DEPRESSIVE ANXIETY STATES.
159776 04-09

ACID MONOAMINE METABOLITES IN THE CEREBROSPINAL FLUID OF PARKINSONIAN PATIENTS TREATED WITH LEVODOPA ALONE OR COMBINED WITH DECARBOXYLASE INHIBITOR.
160650 04-13

DEXTROMETHORPHAN MONOAMINE OXIDASE INHIBITOR INTERACTION IN RABBITS.
163801 04-03

INHIBITORS
NEW THERAPEUTIC POSSIBILITIES IN DEPRESSIONS: TRYPTOPHAN AND INHIBITORS OF MONOAMINE OXIDASE.
151394 04-10

BLOOD-BRAIN BARRIER TO CARBIDOPA (MK-486) AND RO-4-4602, PERIPHERAL DOPA DECARBOXYLASE INHIBITORS.
155906 04-03

SPECIFIC IRREVERSIBLE INHIBITORS OF MONOAMINE OXIDASE.
156874 04-01

CURRENT STATUS OF MONOAMINE OXIDASE INHIBITORS IN PSYCHIATRY.
159544 04-09

DOPAMINE DERIVED TETRAHYDROISOQUINOLINE ALKALOIDS -- INHIBITORS OF NEUROAMINE METABOLISM.
160546 04-03

SPECIFIC IRREVERSIBLE INHIBITORS OF MONOAMINE OXIDASE.
164855 04-01

INHIBITORY
THE COMPLEXITY OF THE INHIBITORY ACTION OF DICOUMAROL ON THE MIXED FUNCTION OXIDASE SYSTEM OF RAT LIVER MICROSOMES.
150582 04-03

INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE.
150583 04-03

IN VITRO INHIBITORY EFFECTS OF NARCOTIC ANALGESICS AND OTHER PSYCHOTROPIC DRUGS ON THE ACTIVE UPTAKE OF NOREPINEPHRINE IN MOUSE BRAIN TISSUE.
157063 04-03

INHIBITORY EFFECT OF METHYLXANTHINES ON THE ADENOSINE STIMULATED FORMATION OF CYCLIC AMP IN BRAIN SLICES.
158512 04-03

THE EFFECT OF SOME SUBSTANCES OF THE PHENOTHIAZINE SERIES AND OF ALPHA-ADRENERGIC BLOCKING AGENTS ON SPINAL CORD ACTIVITY UNDER CONDITIONS OF DISRUPTION OF INHIBITORY MECHANISMS BY TETANUS TOXIN.
162921 04-03

INHIBITORY EFFECT OF GEROVITAL-H3 AND PROCAINE ON MONOAMINE OXIDASE IN RAT BRAIN, LIVER, HEART AND PLATELETS.
166386 04-11

INITIAL

EFFECTS OF FOOD DEPRIVATION AND INITIAL LEVELS ON A WHEEL-RUNNING RESPONSE TO METHAMPHETAMINE.
152354 04-03

SPONTANEOUS MOTOR ACTIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL MOTOR ACTIVITY AND SENSORY ACTIVITY.
158486 04-04

AUDITORY SENSITIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL SENSORY ACTIVITY AND SPONTANEOUS MOTOR ACTIVITY.
158487 04-03

INJECTABLE

PIPERACETAZINE INJECTABLE: A CONTROLLED STUDY.
165803 04-08

INJECTED

A COMPARATIVE STUDY OF THE ACTION OF ACTINOMYCIN D AND ACTINOMYCINIC ACID ON THE CENTRAL NERVOUS SYSTEM WHEN INJECTED INTO THE CEREBROSPINAL FLUID OF HIGHER ANIMALS.
152436 04-05

INJECTIBLE

COMPARATIVE EVALUATION OF INJECTIBLE CHLORPROMAZINE AND PIPERACETAZINE.
163332 04-08

INJECTION

MEMORY STORAGE IN THREE INBRED MOUSE STRAINS AFTER INJECTION OF CYCLOHEXIMIDE.
153042 04-04

PREPARATION OF DELTA9-TETRAHYDROCANNABINOL FOR INTRAVENOUS INJECTION.
156763 04-06

AN EVALUATION OF TIME-DEPENDENT CHANGES IN SUSCEPTIBILITY OF MICE TO PENTOBARBITAL INJECTION.
156809 04-04

A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

PRIMARY POLYURIA ACCOMPANIES HUNGER ELICITED BY INTRAHYPOTHALAMIC INJECTION OF NORADRENALINE.
156815 04-03

COMPARABLE BEHAVIOR MAINTAINED UNDER FIXED-RATIO AND SECOND-ORDER SCHEDULES OF FOOD PRESENTATION, COCAINE INJECTION OR D-AMPHETAMINE INJECTION IN THE SQUIRREL MONKEY.
159367 04-04

INJECTIONS

DEPTH PERCEPTION IN RATS FOLLOWING ACUTE OR CHRONIC INJECTIONS OF DL-DELTA9-TETRAHYDROCANNABINOL.
150420 04-04

SUPPRESSION AND RECOVERY OF MOUSE KILLING IN RATS FOLLOWING IMMEDIATE LITHIUM CHLORIDE INJECTIONS.
151228 04-04

CONDITIONED AVERSION TO A PREFERRED SOLUTION FOLLOWING METHAMPHETAMINE INJECTIONS.
153105 04-04

EFFECTS OF INTRACEREBRAL INJECTIONS OF 5,6 DIHYDROXYTRYPTAMINE ON CENTRAL MONOAMINE NEURONS: EVIDENT FOR SELECTIVE DEGENERATION OF CENTRAL 5-HYDROXYTRYPTAMINE NEURONS.
162894 04-03

INNERVATION

A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

INOSIPLEX

BIOCHEMICAL OBSERVATIONS DURING A TRIAL OF INOSIPLEX IN SENILE DEMENTIA.
156134 04-09

INPATIENT

FLUPHENAZINE DECANOATE TRIAL IN CHRONIC INPATIENT SCHIZOPHRENICS FAILING TO ABSORB ORAL CHLORPROMAZINE.
156741 04-08

INPATIENTS

BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. I. CHLORPROMAZINE AND THIORIDAZINE.
152867 04-11

BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. II. MULTIVITAMIN SUPPLEMENT.
152868 04-11

SKIN POTENTIAL ORIENTING RESPONSES IN DRUG TREATED AND NONDRUG TREATED DEPRESSED INPATIENTS.
159395 04-09

PREMORBID ASOCIAL ADJUSTMENT AND RESPONSE TO PHENOTHIAZINE TREATMENT AMONG SCHIZOPHRENIC INPATIENTS.
164714 04-08

SEX-ROLE DEVELOPMENT AND RESPONSE TO MEDICATION BY PSYCHIATRIC INPATIENTS.
165189 04-17

INSOMNIA

HYPNOTIC EFFECT OF 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA) IN EXPERIMENTALLY INDUCED INSOMNIA AND BRAIN SEROTONIN IN RATS.
158504 04-04

DIAZEPAM IN THE TREATMENT OF INSOMNIA IN PSYCHIATRIC PATIENTS.
163682 04-11

INSTRUMENTAL

NATURE AND AMPLITUDE OF THE EFFECTS OF ACETOXYCYCLOHEXIMIDE ON THE RETENTION OF AN INSTRUMENTAL TASK IN MICE.
161123 04-04

INSULIN

EFFECT OF L-DOPA ON PLASMA GROWTH HORMONE AND INSULIN.
151693 04-13

INSULIN STIMULATION OF AIB TRANSPORT IN RAT THYMOCYTES. (UNPUBLISHED PAPER).
156869 04-03

INSURANCE

SLEEP INSURANCE: A VALID USE OF HYPNOTICS
150327 04-17

INTACT

TRH: ENHANCEMENT OF DOPA ACTIVITY IN NORMAL INTACT, HYPOPHYSECTOMIZED AND THYROIDECTOMIZED ANIMALS.
155252 04-03

INTAKE

THE EFFECTS OF 6-HYDROXYDOPAMINE, DOPAMINE AND DL-NOREPINEPHRINE ON FOOD INTAKE AND WATER CONSUMPTION, SELF-STIMULATION, TEMPERATURE AND ELECTROENCEPHALOGRAPHIC ACTIVITY IN THE RAT.
150352 04-04

TOLERANCE IN THE DEPRESSION OF INTAKE WHEN AMPHETAMINE IS ADDED TO THE RATS FOOD.
150353 04-03

CATECHOLAMINE SYNTHESIS AND THE REGULATION OF FOOD INTAKE IN THE RAT.
150423 04-04

SOME CORRELATES OF MARIHUANA SELF-ADMINISTRATION IN MAN: A STUDY OF TITRATION OF INTAKE AS A FUNCTION OF DRUG POTENCY.
153100 04-13

INTAKE OF DIAZEPAM AND HASHISH BY ALCOHOL PREFERRING RATS DEPRIVED OF ALCOHOL.
153571 04-03

ACUTE EFFECTS OF TWO TETRAHYDROCANNABINOLS (DELTA9-THC AND DELTA8-THC) ON WATER INTAKE IN WATER DEPRIVED RATS: IMPLICATIONS FOR BEHAVIORAL STUDIES ON MARIHUANA COMPOUNDS.
157149 04-04

THE EFFECTS OF HYPOTHALAMIC IMPLANTS OF ALDOSTERONE, ANGIOTENSIN II, CARBACOL, NOREPINEPHRINE, AND NACL ON WATER AND NACL INTAKE IN NORMAL AND ADRENALECTOMIZED RATS.
159391 04-04

INTEGRATIVE

THE NOOTROPIC APPROACH TO THE PHARMACOLOGY OF THE INTEGRATIVE ACTIVITY OF THE BRAIN.
159396 04-07

INTELLIGIBILITY

SPEECH DEFECTS OF PARKINSONIAN PATIENTS: EFFECTS OF LEVODOPA THERAPY ON SPEECH INTELLIGIBILITY.
156075 04-14

INTENSITY

DRUGS AND PUNISHED RESPONDING: III. PUNISHMENT INTENSITY AS A DETERMINANT OF DRUG EFFECT.
150322 04-04

EFFECT OF LITHIUM CARBONATE AND ALPHA-METHYL-P-TYROSINE ON AUDIOGENIC SEIZURE INTENSITY.
163803 04-03

INTENSIVE

POSITIVE OUTCOME IN PSYCHIATRIC CRISIS: EVALUATION OF THIORIDAZINE CONCENTRATE IN AN INTENSIVE, SHORT-TERM PSYCHIATRIC PROGRAM.
155793 04-10

CLINICAL USE OF DIAZEPAM AN INTENSIVE THERAPY: INDICATIONS AND RESULTS.
158297 04-17

INTERACTION
THE INTERACTION OF DELTA9-TETRAHYDROCANNABINOL PRETREATMENT WITH VARIOUS SEDATIVE HYPNOTIC DRUGS.
150302 04-04
INTERACTION OF OXOTREMORINE WITH ATROPINE, CHLORPROMAZINE, CYPROHEPTADINE, IMIPRAMINE AND PHENOXYBENZAMINE ON THE FLEXOR REFLEX OF THE CHRONIC SPINAL DOG.
150318 04-03
INTERACTION BETWEEN CLONIDINE AND DESIPRAMINE IN MAN.
150827 04-15
INTERACTION BETWEEN LEVODOPA AND METHYLDOPA.
151048 04-15
INTERACTION OF THE IMIDAZOLONE DERIVATIVE GPA-1851 WITH HEPATIC MICROSOMAL DRUG METABOLISM.
151906 04-03
MARIJUANA AND AMPHETAMINE: THE QUESTION OF INTERACTION.
152715 04-14
DRUG INTERACTION -- EFFECT OF CHLORPROMAZINE ON THE DISPOSITION OF 8-14C-MESCALINE IN FETAL AND MATERNAL BRAIN AND LIVER IN PREGNANT MOUSE.
155221 04-03
BEHAVIOURAL AND BIOCHEMICAL INTERACTION BETWEEN CAFFEINE AND L-DOPA.
156757 04-04
INTERACTION OF STRESS AND PSYCHOTOMIMETIC DRUG ACTION: POSSIBLE IMPLICATION FOR PSYCHOSIS.
157042 04-04
A STUDY OF THE TRANYLCYPROMINE MEPERIDINE INTERACTION: EFFECTS OF P-CHLOROPHENYLALANINE AND 1 5-HYDROXYTRYPTOPHAN.
157065 04-03
INTERACTION OF BENZODIAZEPINES WITH WARFARIN IN MAN.
158302 04-13
INTERACTION OF BENZODIAZEPINES WITH ORAL ANTICOAGULANTS.
158303 04-14
MORPHINE, PROPRANOLOL AND THEIR INTERACTION IN MONKEYS TRAINED TO SELF-ADMINISTER DRUGS. (UNPUBLISHED PAPER).
158321 04-04
EFFECT OF P-CHLOROPHENYLALANINE ON THE INTERACTION BETWEEN PHENELZINE AND PETHIDINE IN CONSCIOUS RABBITS.
160201 04-04
THE INTERACTION OF CHLORDIAZEPOXIDE, DIAZEPAM, AND NITRAZEPAM WITH CATECHOLAMINES AND HISTAMINE IN REGIONS OF THE RAT BRAIN.
160471 04-03
INTERACTION OF CHLORAMPHENICOL AND DELTA1-TETRAHYDROCANNABINOL IN BARBITAL ANESTHETIZED MICE.
162055 04-02
INTERACTION OF DIPHENYLHYDANTONIN-4-14C WITH SUBCELLULAR FRACTIONS OF RAT BRAIN.
162949 04-03
DEXTROMETHORPHAN MONOAMINE OXIDASE INHIBITOR INTERACTION IN RABBITS.
163801 04-03
INTERACTION OF COCAINE AND IPRONIAZID ON THE H3-NOREPINEPHRINE UPTAKE MECHANISM ON ISOLATED STRIP VENTRICLE OF FROG HEART.
165412 04-03
PHARMACOKINETIC INTERACTION BETWEEN NEUROLEPTICS AND ANTIDEPRESSANTS: EFFECT ON ORGAN DISTRIBUTION AND METABOLIC PATTERN.
166984 04-03
DRUG INTERACTION WITH PSYCHOPHARMACEUTICALS.
166987 04-03

INTERACTIONS
LONG-TERM INTERACTIONS OF MARIJUANA AND BEHAVIOUR IN CHIMPANZEES.
150388 04-04
EFFECTS OF ESTROGEN AND PROGESTERONE ON BRAIN MONOAMINES: INTERACTIONS WITH PSYCHOTROPIC DRUGS.
152045 04-03
BEHAVIORAL AND PSYCHOSOMATIC EFFECTS OF BENZODIAZEPINES: INTERACTIONS WITH OTHER DRUGS.
158301 04-14
EFFECTS OF ETHANOL ON CEREBRAL CORTICAL NEURONS: INTERACTIONS WITH SOME PUTATIVE TRANSMITTERS.
158773 04-03
UNEXPECTED EFFECTS RELATED TO INTERACTIONS OF DRUGS IN PEDIATRIC USE.
160690 04-15
SEROTONIN RECEPTORS OF THE RAT BRAIN, THEIR INTERACTIONS WITH METHYSERGIDE. (PH.D. DISSERTATION).
163029 04-03
INTERACTIONS BETWEEN AMPHETAMINE AND SEROTONERGIC AGENTS ON CATS ISOLATED CEREBRAL CORTEX.
163780 04-03
INTERACTIONS OF PSYCHOTROPIC DRUGS IN THE ELDERLY.
166019 04-13
INTERACTIONS OF SEVERAL CANNABINOIDS WITH THE HEPATIC DRUG METABOLIZING SYSTEM.
166689 04-03

INTERATOMIC
A COMPARISON OF COMMON INTERATOMIC DISTANCES IN SEROTONIN AND SOME HALLUCINOGENIC DRUGS.
167042 04-01

INTERHEMISPHERIC
INTERHEMISPHERIC RELATIONSHIPS WITH SOMATIC THERAPY.
162362 04-14

INTERMEDIATES
THE EFFECT OF PHENOBARBITONE ANESTHESIA UPON SOME ORGANIC PHOSPHATES, GLYCOLYTIC METABOLITES AND CITRIC ACID CYCLE ASSOCIATED INTERMEDIATES OF THE RAT BRAIN.
160226 04-03

INTERNAL
DEUTERIUM SUBSTITUTED AMPHETAMINE AS AN INTERNAL STANDARD IN A GC/MS ASSAY FOR AMPHETAMINE.
156906 04-06

INTERNATIONAL
INTERNATIONAL DIRECTORY OF INVESTIGATORS IN PSYCHOPHARMACOLOGY.
161669 04-17

INTERNEURONS
EFFECT OF PARA-METHOXYPHENYLETHYLAMINE ON POLYSYNAPTIC PATHWAYS AND ON INTERNEURONS OF THE CAT LUMBAR SPINAL CORD.
157112 04-03
EFFECTS OF TYBAMATE AND PENTYLENETETRAZOL ON SPINAL INTERNEURONS.
162958 04-03

INTERRELATIONS
ELECTROPHYSIOLOGICAL ANALYSIS OF DIENCEPHALO - AMYGDALOID INTERRELATIONS.
152101 04-03

INTERVENTION
APOMORPHINE INDUCED AGGRESSION: CHARACTERISTICS, PHARMACOLOGICAL INTERVENTION, AND SITE OF ACTION.
155246 04-03

INTESTINAL
THE DEMETHYLATION OF METHAMPHETAMINE BY INTESTINAL MICROFLORA.
155908 04-13
EFFECT OF LITHIUM ON THE BLOOD AND INTESTINAL SEROTONIN CONTENTS OF RATS.
163019 04-05

INTESTINE
BLOCKADE BY BUFOTENIDINE OF THE SEROTONIN AND NARCOTIC ANALGESICS INDUCED CONTRACTION OF DOG INTESTINE IN VIVO.
156825 04-03

INTOXICATION
ACUTE RENAL FAILURE AND LITHIUM INTOXICATION.
152032 04-15
ANALYSIS OF CLINICAL EXPERIENCES OBTAINED IN 100 CASES OF ACUTE APAURINE DIAZEPAM INTOXICATION.
152085 04-15
WATER INTOXICATION DURING CARBAMAZEPINE TREATMENT.
162719 04-13

INTOXICATIONS
USE OF ORAL DDT IN THREE HUMAN BARBITURATE INTOXICATIONS: HEPATIC ENZYME INDUCTION BY RECIPROCAL DETOXICANTS.
155205 04-15

INTRAAMYGDALOID
ACTION OF CARBAMAZEPINE (TEGRETOL) AND APHENDIONE ON REACTIONS PROVOKED BY INTRAAMYGDALOID ADMINISTRATION OF CARBACHOLINE TO RABBITS.
151815 04-04

INTRACAUDATE
ANALYSIS OF TREMORGENIC EFFECTS OF INTRACAUDATE SEROTONIN (37476).
162047 04-03

INTRACELLULAR
INTRACELLULAR LITHIUM CONCENTRATION AND CLINICAL RESPONSE: TOWARDS A MEMBRANE THEORY OF DEPRESSION.
161732 04-13

INTRACEREBRAL
EFFECTS OF INTRACEREBRAL INJECTIONS OF 5,6 DIHYDROXYTRYPTAMINE ON CENTRAL MONOAMINE NEURONS: EVIDENT FOR SELECTIVE DEGENERATION OF CENTRAL 5-HYDROXYTRYPTAMINE NEURONS.
162894 04-03

INTRACISTERNALLY
GROWTH AND BEHAVIORAL CHANGES IN DEVELOPING RATS TREATED INTRACISTERNALLY WITH 6-HYDROXYDOPAMINE: EVIDENCE FOR INVOLVEMENT OF BRAIN DOPAMINE.
157117 04-03
LOCALIZATION IN BRAIN PARTICULATE FRACTIONS OF NARCOTIC ANALGESIC DRUGS ADMINISTERED INTRACISTERNALLY TO RATS.
157185 04-03

INTRACRANIAL
INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES. 150300 04-04
LITHIUM AND AMPHETAMINE: OPPOSITE EFFECTS ON THRESHOLD OF INTRACRANIAL REINFORCEMENT. 157045 04-04

INTRAHYPOTHALAMIC
PRIMARY POLYURIA ACCOMPANIES HUNGER ELICITED BY INTRAHYPOTHALAMIC INJECTION OF NORADRENALINE. 156815 04-03

INTRAMUSCULAR
RAPID TRANQUILIZATION OF ACUTELY PSYCHOTIC PATIENTS WITH INTRAMUSCULAR HALOPERIDOL AND CHLORPROMAZINE. 155797 04-09

INTRASPECIES
THE EFFECT OF PSYCHOTROPIC SUBSTANCES ON ONE OF THE FORMS OF INTRASPECIES RELATIONS. 162920 04-04

INTRATHORACIC
STATE-DEPENDENT LEARNING PRODUCED BY POST TRIAL INTRATHORACIC ADMINISTRATION OF SODIUM PENTOBARBITAL. 163761 04-04

INTRAVENOUS
CONTROLLED EVALUATION OF INTRAVENOUS DRUGS IN THE SPECIFIC DESENSITIZATION OF PHOBIAS. 153609 04-10
FIXED-INTERVAL SCHEDULES OF INTRAVENOUS COCAINE PRESENTATION IN RATS. 155410 04-04
PREPARATION OF DELTA9-TETRAHYDROCANNABINOL FOR INTRAVENOUS INJECTION. 156763 04-06
AN INTRAVENOUS FORMULATIONS OF DELTA9-TETRAHYDROCANNABINOL USING A NONIONIC SURFACTANT. 156764 04-05
CHRONIC INTRAVENOUS DRUG ADMINISTRATION IN THE PIGEON. 156827 04-06
INTRAVENOUS DIAZEPAM ADMINISTRATION. 159472 04-17
CHLORIMIPRAMINE: A DOUBLE-BLIND COMPARISON OF INTRAVENOUS VERSUS ORAL ADMINISTRATION IN DEPRESSED PATIENTS. 166729 04-09

INTRAVENTRICULAR
RESTORATION OF MORPHINE ANALGESIA IN MORPHINE TOLERANT RATS AFTER THE INTRAVENTRICULAR ADMINISTRATION OF 6-HYDROXYDOPAMINE. 158774 04-03
BEHAVIOR OF FREE-RANGING MACAQUES AFTER INTRAVENTRICULAR 6-HYDROXYDOPAMINE. 163161 04-04
DISSOCIATION OF SOME BEHAVIORAL EFFECTS OF INTRAVENTRICULAR DOPAMINE AND NOREPINEPHRINE. (PH.D. DISSERTATION). 163450 04-04

INTRAVENTRICULARLY
TRANSFER OF STATE-DEPENDENT CONTROL OF DISCRIMINATIVE BEHAVIOUR BETWEEN SUBCUTANEOUSLY AND INTRAVENTRICULARLY ADMINISTERED NICOTINE AND SALINE. 163771 04-04
DECREASED ANTINOCICEPTIVE ACTIVITY OF MORPHINE IN RATS PRETREATED INTRAVENTRICULARLY WITH 5,6 DIHYDROXYTRYPTAMINE, A LONG-LASTING SELECTIVE DEPLETOR OF BRAIN SEROTONIN. 163775 04-03

INVESTIGATION
EMOTIONALLY INDUCED CARDIOVASCULAR CHANGES IN MAN AS A MEANS FOR THE INVESTIGATION OF TRANQUILLIZING DRUGS. 150323 04-13
MESORIDAZINE VERSUS CHLORPROMAZINE IN ACUTE SCHIZOPHRENIA: A DOUBLE-BLIND INVESTIGATION. 152708 04-08
PHYTOCHEMICAL INVESTIGATION OF VIROLA-PERUVIANA, A NEW HALLUCINOGENIC PLANT. 163189 04-12

INVESTIGATIONS
THE RELEVANCE OF IMMUNOLOGIC STUDIES ON EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) TO CLINICAL INVESTIGATIONS ON MULTIPLE SCLEROSIS. (UNPUBLISHED PAPER). 152545 04-03
CLINICAL AND EEG INVESTIGATIONS WITH CI-579 AND CI-600 (QUANTITATIVE PHARMACOELECTROENCEPHALOGRAPHY AND SLEEP PRINTS). 166733 04-08
NEW INVESTIGATIONS INTO BIOGENIC AMINES (CEREBRAL OR CELLULAR LOCALIZATION, INFLUENCE OF VARIOUS CHEMICAL FACTORS). 167085 04-03

INVESTIGATORS
INTERNATIONAL DIRECTORY OF INVESTIGATORS IN PSYCHOPHARMACOLOGY. 161669 04-17

INVOLUNTARY
TREMOR AND INVOLUNTARY MOVEMENTS IN MONKEYS: EFFECT OF L-DOPA AND OF A DOPAMINE RECEPTOR STIMULATING AGENT. 149651 04-03

INVOLVED
FACTORS INVOLVED IN ETHANOL NARCOSIS: ANALYSIS IN MICE OF THREE INBRED STRAINS. 159567 04-03
CHARACTERIZATION OF CENTRAL ANGIOTENSIN II RECEPTORS INVOLVED IN THE ELICITATION OF DRINKING IN THE RAT. 162890 04-03

INVOLVEMENT
GROWTH AND BEHAVIORAL CHANGES IN DEVELOPING RATS TREATED INTRACISTERNALLY WITH 6-HYDROXYDOPAMINE: EVIDENCE FOR INVOLVEMENT OF BRAIN DOPAMINE. 157117 04-03
INVOLVEMENT OF BRAIN CHOLINERGIC MECHANISMS IN THE ACTION OF CHLORPROMAZINE. (UNPUBLISHED PAPER). 158316 04-03
INVOLVEMENT OF BIOGENIC AMINES IN MEMORY FORMATION: THE CENTRAL NERVOUS SYSTEM INDOLE AMINE INVOLVEMENT. 162272 04-03
EVIDENCE FOR CATECHOLAMINE INVOLVEMENT IN THE SUPPRESSION OF LOCOMOTOR ACTIVITY DUE TO HYPOXIA. 163802 04-03

ION
PARAMAGNETIC ION INDUCED SHIFTS IN THE NMR SPECTRA OF RESERPINE AND METHYL 3,4,5 TRIMETHOXYBENZOATE. 156867 04-06

IONIC
THE EFFECTS OF CHANGES IN IONIC ENVIRONMENT AND MODIFICATION OF ADRENERGIC FUNCTION ON THE VASCULAR RESPONSES TO SYMPATHOMIMETIC AMINES. 158769 04-03
HIPPOCAMPAL EPILEPSY PRODUCED BY OUABAIN: STUDIES OF CEREBRAL CIRCULATION AND IONIC METABOLISM. 160649 04-03

IPNO
CLINICAL EVALUATION OF IMIPRAMINE-N-OXIDE (IPNO) IN THE TREATMENT OF DEPRESSIVE STATES. 154979 04-09

IPRONIAZID
THE MANAGEMENT OF SEVERE AGORAPHOBIA: A COMPARISON OF IPRONIAZID AND SYSTEMATIC DESENSITIZATION. 163751 04-10
INTERACTION OF COCAINE AND IPRONIAZID ON THE H3-NOREPINEPHRINE UPTAKE MECHANISM ON ISOLATED STRIP VENTRICLE OF FROG HEART. 165412 04-03

IRREVERSIBLE
SPECIFIC IRREVERSIBLE INHIBITORS OF MONOAMINE OXIDASE. 156874 04-01
SPECIFIC IRREVERSIBLE INHIBITORS OF MONOAMINE OXIDASE. 164855 04-01

ISOLATED
EFFECT OF PENTOBARBITAL ON AMINO ACID AND UREA FLUX IN THE ISOLATED DOG BRAIN. 151733 04-03
SEROTONIN BINDING PROTEINS ISOLATED BY AFFINITY CHROMATOGRAPHY. (UNPUBLISHED PAPER). 158570 04-03
INTERACTIONS BETWEEN AMPHETAMINE AND SEROTONERGIC AGENTS ON CATS ISOLATED CEREBRAL CORTEX. 163780 04-03
INTERACTION OF COCAINE AND IPRONIAZID ON THE H3-NOREPINEPHRINE UPTAKE MECHANISM ON ISOLATED STRIP VENTRICLE OF FROG HEART. 165412 04-03

ISOLATION
CACTUS ALKALOIDS XVI: ISOLATION AND IDENTIFICATION OF ALKALOIDS IN CORYPHANTHA-RAMILLOSA. 150412 04-01
THE EFFECT OF DL-PROPRANOLOL, D-PROPRANOLOL AND PRACTOLOL ON THE HYPERACTIVITY INDUCED IN RATS BY PROLONGED ISOLATION. 157040 04-04
EFFECTS OF L-DOPA AND RESERPINE ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION. 158495 04-04
EFFECTS OF L-DOPA AND DDC ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION. 158496 04-04

ISOMERS
GILLES-DE-LA-TOURETTES DISEASE AND MINIMAL BRAIN DYSFUNCTION: AMPHETAMINE ISOMERS REVEAL CATECHOLAMINE CORRELATES IN AN AFFECTED PATIENT.
153097 04-11
SELF-ADMINISTRATION OF OPTICAL ISOMERS OF AMPHETAMINE AND METHYLAMPHETAMINE BY RATS.
163766 04-04
A COMPARISON OF THE EFFECTS OF SOTALOL AND OF THE ISOMERS OF PRACTOLOL ON ADRENERGIC NERVOUS ACTIVITY.
166789 04-03

ISOMORPHINE
HUMAN METABOLITE OF NALTREXONE (N-CYCLOPROPYLMETHYLNOROXYMORPHONE) WITH A NOVEL C-6 ISOMORPHINE CONFIGURATION. (UNPUBLISHED PAPER).
152201 04-13

ISOSTERES
SYNTHESIS OF INDOLE ISOSTERES.
156876 04-01

JAKARTA
TREATMENT OF AMBULATORY NEUROTIC PATIENTS WITH WY-4036, JAKARTA, INDONESIA.
152342 04-10

JAPANESE
EFFECTS OF CHLORDIAZEPOXIDE UPON SUCCESSIVE RED-GREEN DISCRIMINATION RESPONSES IN JAPANESE MONKEYS, MACACA-FUSCATA.
150325 04-04
PAPERS ON PSYCHOPHARMACOLOGICAL RESEARCH FROM THE JAPANESE LITERATURE.
155278 04-17

JUDGMENT
CLINICAL JUDGMENT VS. MULTIVARIATE FORMULAE IN ASSIGNMENT OF PSYCHOTROPIC DRUGS.
161818 04-14

JUNKIES
DRUGS, DOCTORS AND JUNKIES.
150614 04-17

KETAMINE
SEQUENTIAL TRIAL UPON THE AWAKENING EFFECT OF AMANTADINE AFTER KETAMINE ANESTHESIA.
150833 04-13
KETAMINE ANESTHESIA IN BRAIN-DAMAGED EPILEPTICS.
152131 04-13

KEY
EFFECTS OF D-AMPHETAMINE ON SCHEDULE CONTROLLED KEY PRESSING AND DRINKING IN THE CHIMPANZEE.
157119 04-04

KIDNEYS
ADENYL CYCLASE ACTIVITY IN KIDNEYS OF RATS WITH LITHIUM INDUCED POLYURIA.
163320 04-03

KILLING
SUPPRESSION AND RECOVERY OF MOUSE KILLING IN RATS FOLLOWING IMMEDIATE LITHIUM CHLORIDE INJECTIONS.
151228 04-04
EFFECTS OF CHOLINERGIC DRUGS ON PREY KILLING BY RODENTS.
157136 04-04
EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF CANNABIS-SATIVA EXTRACT ON THE MOUSE KILLING BEHAVIOR OF RATS.
159568 04-04

KINETIC
METHAQUALONE: METABOLIC, KINETIC, AND CLINICAL PHARMACOLOGIC OBSERVATIONS.
151154 04-13

KINETICS
ELIMINATION KINETICS OF AMOBARBITAL IN MOTHERS AND THEIR NEWBORN INFANTS.
151163 04-13
KINETICS OF GENERAL AND REGIONAL BRAIN DISTRIBUTION OF CLOSELY RELATED 7-CHLORO-1,4 BENZODIAZEPINES.
160468 04-03
KINETICS OF THE DISTRIBUTION OF 14C-DIAZEPAM AND ITS METABOLITES IN VARIOUS AREAS OF CAT BRAIN.
160478 04-03
KINETICS AND DYNAMICS OF RESPONSE TO HALOPERIDOL IN ACUTE SCHIZOPHRENIA -- A LONGITUDINAL STUDY OF THE THERAPEUTIC PROCESS.
162869 04-08
APPLICATION OF PRINCIPLES OF STEADY-STATE KINETICS TO MEASURE ACETYLCHOLINE TURNOVER RATE IN RAT SALIVARY GLANDS: EFFECT OF DEAFFERENTATION AND DUCT LIGATION.
163763 04-03

KININ-LIKE
STUDIES ON KININ-LIKE SUBSTANCES IN BRAIN.
150581 04-03

L-AMPHETAMINE
ACUTE AND CHRONIC EFFECTS OF D- AND L-AMPHETAMINE ON SEIZURE SUSCEPTIBILITY IN MICE.
156821 04-03

L-DOPA
TREMOR AND INVOLUNTARY MOVEMENTS IN MONKEYS: EFFECT OF L-DOPA AND OF A DOPAMINE RECEPTOR STIMULATING AGENT.
149651 04-03
NEW COMPOUNDS: SYNTHESIS OF ALKYL ESTERS OF D,L-DOPA.
150417 04-01
COMPARISON OF L-DOPA WITH ITS ASSOCIATION WITH AN L-DOPA DECARBOXYLASE INHIBITOR IN THE MANAGEMENT OF PARKINSONS DISEASE.
150631 04-15
THE EXCRETION OF L-DOPA METABOLITES AT DIFFERENT HOURS OF THE DAY.
150836 04-13
TREATMENT OF PARKINSONISM WITH L-DOPA AND DECARBOXYLASE INHIBITOR: AN ELECTROPHYSIOLOGICAL STUDY.
151688 04-11
ADMINISTRATION OF AMANTADINE TO PATIENTS ON OPTIMUM L-DOPA DOSAGE.
151690 04-11
TREATMENT OF PARKINSONISM WITH A COMPOUND OF L-DOPA (LARODOPA) AND A DECARBOXYLASE INHIBITOR (RO-4-4602).
151691 04-11
TREATMENT FAILURES WITH L-DOPA IN PARKINSONISM.
151692 04-11
EFFECT OF L-DOPA ON PLASMA GROWTH HORMONE AND INSULIN.
151693 04-13
THE INFLUENCE OF L-DOPA ON PHYSICAL TREATMENT OF PARKINSONISM.
151694 04-11
PLASMA TESTOSTERONE CONTENT OF MALE PATIENTS WITH PARKINSONS DISEASE DURING L-DOPA TREATMENT WITH OR WITHOUT DOPADECARBOXYLASE INHIBITOR.
151695 04-15
LONG-TERM TREATMENT OF PARKINSONISM WITH L-DOPA.
151696 04-11
ENHANCEMENT OF BRAIN L-DOPA CONCENTRATION WITH ALPHA-CHYMOTRYPSIN.
152870 04-03
L-DOPA AND BEHAVIOR.
155866 04-11
MENTAL DISORDERS IN THE COURSE OF L-DOPA TREATMENT.
156568 04-15
BEHAVIOURAL AND BIOCHEMICAL INTERACTION BETWEEN CAFFEINE AND L-DOPA.
156757 04-04
L-DOPA SUPPRESSION OF TRH STIMULATED PROLACTIN RELEASE IN MAN.
156772 04-13
CERTAIN PREDICTIONS ON THE EFFECTIVENESS OF L-DOPA ON PARKINSONISM.
156778 04-11
CORRELATION BETWEEN BRAIN DOPAMINE LEVELS AND L-DOPA ACTIVITY IN ANTIPARKINSON TESTS.
156823 04-06
L-DOPA AND REM SLEEP IN NORMAL AND MENTALLY RETARDED SUBJECTS.
157496 04-14
EFFECTS OF L-DOPA AND RESERPINE ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158495 04-04
EFFECTS OF L-DOPA AND DDC ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158496 04-04
ANIMAL MODELS FOR AN ENZYMIC BLOOD-BRAIN BARRIER MECHANISM FOR THERAPEUTICALLY ADMINISTERED L-DOPA.
159566 04-03
PSYCHOLOGICAL ASPECTS OF SHORT-TERM VERSUS LONG-TERM L-DOPA THERAPY IN PARKINSONISM. (PH.D. DISSERTATION).
159895 04-14
OBSERVATIONS OF L-DOPA TREATMENT AND OF ITS SIDE-EFFECTS IN THE AGED.
160138 04-15
THE HYPOTHERMIC EFFECT OF L-DOPA IN THE RAT.
160769 04-03
TREATMENT OF PARKINSONISM BY THE USE OF L-DOPA AND THALAMIC OPERATIONS.
161558 04-13
EFFECTS OF L-DOPA AND L-3-METHOXYTYROSINE ON D-METHAMPHETAMINE INDUCED MOTOR ACTIVITY AND SEIZURES INDUCED BY ELECTROSHOCK (37475).
162046 04-03
DRUG-INDUCED DYSTONIA-TARDA: TREATMENT WITH L-DOPA.
162361 04-15

COMPARISON OF EFFECTS OF L-DOPA, AMPHETAMINE AND APOMORPHINE ON FIRING RATE OF RAT DOPAMINERGIC NEURONES. 162974 04-03
BEHAVIORAL EFFECTS OF L-DOPA IN SCHIZOPHRENIC PATIENTS. 163754 04-08
EFFECTS OF CHRONICALLY ADMINISTERED L-DOPA IN NORMAL AND LESIONED CATS. 163767 04-03
RESPONSE THRESHOLD TO L-DOPA IN PSYCHIATRIC PATIENTS. 166068 04-14

L-TRYPTOPHAN
EFFECTS OF L-TRYPTOPHAN ON MOTOR ACTIVITY IN MICE. 150296 04-04
EFFECTS OF L-TRYPTOPHAN, L-3,4,DIHYDROXYPHENYLALANINE AND TRANYLCYPROMINE ON THE ELECTROENCEPHALOGRAM AND ON PHOTICALLY INDUCED EPILEPSY IN THE BABOON, PAPIO-PAPIO. 152044 04-03

L-3-METHOXYTYROSINE
EFFECTS OF L-DOPA AND L-3-METHOXYTYROSINE ON D-METHAMPHETAMINE INDUCED MOTOR ACTIVITY AND SEIZURES INDUCED BY ELECTROSHOCK (37475). 162046 04-03

LABELLED
ON THE USE OF ETHANOL AS A SCAVENGER IN STORING LABELLED DOPA AND 5-HYDROXYTRYPTAMINE IN AQUEOUS SOLUTIONS. 156806 04-06
THE EFFECT OF HEXAFLUORODIETHYL ETHER (FLUROTHYL) ON THE METABOLISM OF RAT BRAIN AMINO ACIDS LABELLED BY (U-14C)GLUCOSE. 160767 04-03

LABOR
LABOR DIVISION OF RATS UNDER THE INFLUENCE OF PROLONGED ADMINISTRATION OF (-)DELTA9-TRANS-TETRAHYDROCANNABINOL. 157181 04-04

LABORATORY
THE POSSIBILITY OF PREDICTING THE EFFECTS OF MARIHUANA IN MAN BY MEANS OF PHARMACOLOGICAL TESTS IN LABORATORY ANIMALS. PRELIMINARY RESULTS. 150778 04-13
SLEEP LABORATORY AND CLINICAL STUDIES OF THE EFFECTS OF BENZODIAZEPINES ON SLEEP: FLURAZEPAM, DIAZEPAM, CHLORDIAZEPOXIDE, AND RO-5-4200. 158299 04-14
SLEEP LABORATORY AND CLINICAL STUDIES WITH FLURAZEPAM. 158300 04-14

LACTATE
LACTATE INFUSION IN THE TREATMENT OF FREE-FLOATING ANXIETY. 153608 04-10

LAG
PROBLEMS AND EXPERIENCES WITH TRIALS OUTSIDE THE UNITED-STATES: THE TIME LAG IN NEW DRUG AVAILABILITY. 155274 04-17

LARODOPA
TREATMENT OF PARKINSONISM WITH A COMPOUND OF L-DOPA (LARODOPA) AND A DECARBOXYLASE INHIBITOR (RO-4-4602). 151691 04-11

LATENCY
INFLUENCE OF 6-HYDROXYDOPAMINE ON THE EFFECT OF MORPHINE ON THE TAIL-FLICK LATENCY. 157146 04-04

LATENT
IMPAIRMENT OF LATENT LEARNING IN THE RAT BY A MARIHUANA COMPONENT. 154814 04-04

LATERAL
SECURININE: A CENTRAL NERVOUS SYSTEM STIMULANT IS USED IN THE TREATMENT OF AMYTROPHIC LATERAL SCLEROSIS. 150425 04-11
THE EFFECTS OF ANALGESICS AND NEUROLEPTICS ON THE RELEASE OF MONOAMINE METABOLITES INTO THE LATERAL CEREBRAL VENTRICLE OF RABBIT. 158482 04-03

LATERALITY
VOLTAGE LATERALITY IN THE EEG OF PSYCHIATRIC PATIENTS. 162365 04-08

LATIN-AMERICAS
NEW DRUG DEVELOPMENTS IN THE LATIN-AMERICAS (ARGENTINA, COSTA-RICA, MEXICO, AND PANAMA). 155273 04-17

LEAD
BEHAVIORAL TOXICOLOGIC ASSESSMENT OF THE NEUROLOGIC EFFECT OF LEAD IN SHEEP. 166736 04-05
USE OF ANIMAL MODELS FOR COMPARATIVE STUDIES OF LEAD POISONING. 166737 04-05
A LEAD INDUCED BEHAVIORAL DISORDER. 166785 04-05

LEARNING
THE EFFECT OF A STIMULANT DRUG (METHAMPHETAMINE) ON COGNITIVE IMPULSIVITY, PLANNING, NEW LEARNING, AND SOCIAL BEHAVIOR IN HYPERACTIVE CHILDREN. (PH.D. DISSERTATION). 149717 04-14
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) AND CHLORDIAZEPOXIDE (CDP) ON STATE-DEPENDENT LEARNING: EVIDENCE FOR ASYMMETRICAL DISSOCIATION. 150301 04-04
ENHANCED APPETITIVE DISCRIMINATION LEARNING IN RATS TREATED WITH ALPHA-METHYLTYROSINE. 150320 04-04
THE EFFECTS OF SCOPOLAMINE ON PREEXPOSURE TO A LEARNING APPARATUS. 151224 04-04
RETROGRADE STATE-DEPENDENT LEARNING. 153267 04-14
IMPAIRMENT OF LATENT LEARNING IN THE RAT BY A MARIHUANA COMPONENT. 154814 04-04
DISRUPTION OF DISSOCIATED LEARNING IN A DISCRIMINATION PARADIGM BY EMOTIONALLY IMPORTANT STIMULI. 157044 04-04
EFFECTS OF CANNABIDIOL AND OF DIPHENYLHYDANTOIN ON THE HIPPOCAMPUS AND ON LEARNING. 157145 04-04
MARIJUANA INDUCED STATE-DEPENDENT VERBAL LEARNING. 157153 04-14
EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING. 158000 04-04
EFFECT OF GINSENOSIDE-RGL, A SAPONIN OF PANAX GINSENG ROOT, ON LEARNING AND MEMORY IN RATS. 158490 04-04
STATE-DEPENDENT LEARNING (DISSOCIATION OF LEARNING) WITH HALLUCINOGENS IN RATS. 158492 04-04
NEW APPARATUS FOR LEARNING EXPERIMENT AND ITS APPLICATION - THE EFFECT OF CHLORPROMAZINE, RESERPINE AND AMPHETAMINE. 158493 04-04
FURTHER EVIDENCE IN SUPPORT OF A COMMON ADRENERGIC MECHANISM FOR THE FACILITATORY ACTION ON LEARNING OF AMPHETAMINE AND NICOTINE IN RATS. 158772 04-04
PERIPHERAL CHEMICAL SYMPATHECTOMY AND LEARNING. 161718 04-04
STATE-DEPENDENT LEARNING PRODUCED BY POST TRIAL INTRATHORACIC ADMINISTRATION OF SODIUM PENTOBARBITAL. 163761 04-04
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) ON SEVERAL RODENT LEARNING PARADIGMS. 167040 04-04

LEGITIMATE
PHYSICIAN CHARACTERISTICS AND ATTITUDES TOWARD LEGITIMATE USE OF PSYCHOTHERAPEUTIC DRUGS. 158645 04-17

LEGS
ACATHISTIC AND TASIKINETIC (MOVING PELVIS) SYNDROMES AND THE RESTLESS LEGS SYNDROME. 150772 04-15

LENGTH
THE EFFECT OF N-ALKYL CHAIN LENGTH AND STEREOCHEMISTRY ON THE ABSORPTION, METABOLISM AND URINARY EXCRETION OF N-ALKYLAMPHETAMINES IN MAN. 163800 04-13

LEPTRIL
USE OF LEPTRIL IN THE TREATMENT OF DYSPHORIAS IN EPILEPTIC PATIENTS. 151810 04-11

LESIONED
EFFECTS OF CHRONICALLY ADMINISTERED L-DOPA IN NORMAL AND LESIONED CATS. 163767 04-03

LESIONS
EFFECT OF 6-HYDROXYDOPAMINE, 5, 6 DIHYDROXYTRYPTAMINE AND RAPHE LESIONS ON THE ANTINOCICEPTIVE ACTIONS OF MORPHINE IN RATS. 157141 04-03
MORPHINE DEPENDENCE IN RATS WITH MEDIAL FOREBRAIN BUNDLE LESIONS. 157152 04-03
THE EFFECT OF M-TYROSINE ON TREMOR AND ON ABNORMAL MOVEMENTS IN MONKEYS WITH VENTROMEDIAL TEGMENTAL LESIONS. 158274 04-03

BRAIN LESIONS ON THE MOUSE FETUS CAUSED BY MONO SODIUM GLUTAMATE (SECOND REPORT). 160038 04-05
EFFECTS OF VENTROMEDIAL HYPOTHALAMIC LESIONS ON CONDITIONED SUCROSE AVERSIONS IN RATS. 162673 04-02
5-HYDROXYTRYPTAMINE METABOLISM, SUPERIOR-COLLICULUS, AND GROOMING BEHAVIOR IN CATS WITH PONTILE LESIONS. 166157 04-03

LETHAL
DOSAGE CONTROL OF DRUGS WITH LETHAL POTENCY FOR UNIVERSITY LEVEL PATIENTS. 150579 04-15

LETHALITY
CIRCADIAN VARIATION OF THE LETHALITY OF METHADONE. 150386 04-03
MECHANISM OF THE SYNERGISTIC LETHALITY BETWEEN PENTAZOCINE AND VASOPRESSIN IN THE RAT. 157066 04-05

LEUKEMIA
ENCEPHALOPATHY IN ACUTE LEUKEMIA ASSOCIATED WITH METHOTREXATE THERAPY. 152036 04-15

LEVALLORPHAN
POSSIBLE CATECHOLAMINE MEDIATION OF LEVALLORPHAN INDUCED BEHAVIOURAL DISRUPTION IN RATS. 157041 04-04
SOME AGONISTIC ACTIONS OF THE MORPHINE ANTAGONIST LEVALLORPHAN ON BEHAVIOR AND BRAIN MONOAMINES IN THE RAT. 163757 04-03

LEVEL
DOSAGE CONTROL OF DRUGS WITH LETHAL POTENCY FOR UNIVERSITY LEVEL PATIENTS. 150579 04-15
THE INFLUENCE OF SOUND PRESSURE LEVEL UPON THE POTENCY OF PHENOBARBITONE SODIUM AND MEPROBAMATE AGAINST AUDIOGENIC SEIZURES IN MICE. 151591 04-04
THE 24-HOUR SERUM LITHIUM LEVEL AS A PROGNOSTICATOR OF DOSAGE REQUIREMENTS. 152911 04-16
SKIN CONDUCTANCE BASAL LEVEL AND REACTIVITY IN SCHIZOPHRENIA AS A FUNCTION OF CHRONICITY, PREMORBID ADJUSTMENT, DIAGNOSIS, AND MEDICATION. 154170 04-08

LEVELS
EFFECTS OF FOOD DEPRIVATION AND INITIAL LEVELS ON A WHEEL-RUNNING RESPONSE TO METHAMPHETAMINE. 152354 04-03
SERUM FOLATE LEVELS DURING ANTICONVULSANT THERAPY WITH DIPHENYLHYDANTOIN. 152875 04-14
THE RELATIONSHIP BETWEEN BLOOD LEVELS OF DIFFERENT FORMS OF BUTAPERAZINE AND CLINICAL RESPONSE. 155055 04-08
CORRELATION BETWEEN BRAIN DOPAMINE LEVELS AND L-DOPA ACTIVITY IN ANTIPARKINSON TESTS. 156823 04-06
EFFECTS OF ALPHA-METHYLTYROSINE ON REM SLEEP AND BRAIN AMINE LEVELS IN THE CAT. 157497 04-03
STUDIES ON POSSIBLE CORRELATIONS BETWEEN CHOLINESTERASE LEVELS IN MOUSE BRAIN AND BEHAVIOR. (PH.D. DISSERTATION). 159827 04-03
INCREASE OF BRAIN LEVELS OF TRYPTOPHAN INDUCED BY INHIBITION OF DOPAMINE BETA-HYDROXYLASE (EC 1.14.2.1). 160230 04-01
INCREASE IN MOUSE AND RAT BRAIN ACETYLCHOLINE LEVELS BY DIAZEPAM. 160475 04-03
RELATIONSHIPS OF CHLORDIAZEPOXIDE BLOOD LEVELS TO PSYCHOLOGICAL AND BIOCHEMICAL RESPONSES. 160477 04-14
THE EFFECT OF RESERPINE, CHLORPROMAZINE AND NEMBUTAL ON LEVELS OF DIPEPTIDES IN RAT BRAIN AND MUSCLE. 160772 04-03
EFFECT OF VARIOUS SEDATIVE DRUGS ON LEVELS OF CHOLINE AND ACETYLCHOLINE AND ON TURNOVER RATE OF ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER). 162398 04-03
THE EFFECTS OF CHRONIC CANNABIS TREATMENT ON THE AGGRESSIVE BEHAVIOR AND BRAIN 5-HYDROXYTRYPTAMINE LEVELS OF RATS WITH DIFFERENT TEMPERAMENTS. 163778 04-04
EFFECT OF SOME LIPID SOLUBLE DERIVATIVES OF AMPHETAMINE ON AMPHETAMINE LEVELS IN RAT BRAIN. 163804 04-03
EFFECTS OF NEUROHUMORAL AND ADRENERGIC AGENTS ON CYCLIC AMP LEVELS IN VARIOUS AREAS OF THE RAT BRAIN IN VITRO. (UNPUBLISHED PAPER). 165682 04-03
EFFECT OF CLONIDINE ON THE 5-HYDROXYTRYPTAMINE AND 5-HYDROXYINDOLEACETIC ACID BRAIN LEVELS. 166695 04-03

LEVODOPA
MODIFICATION OF LEVODOPA EFFECT BY SYSTEMIC DECARBOXYLASE INHIBITION. 150216 04-13
BRAIN CATECHOLAMINES AND THEIR METABOLITES IN PARKINSONIAN PATIENTS: TREATMENT WITH LEVODOPA ALONE OR COMBINED WITH A DECARBOXYLASE INHIBITOR. 150218 04-13
LEVODOPA IN PARKINSONS DISEASE -- AUSTRALIAN COLLABORATIVE TRIAL. 150789 04-14
LEVODOPA AND MENTAL ILLNESS. 150953 04-13
INTERACTION BETWEEN LEVODOPA AND METHYLDOPA. 151048 04-15
TREATMENT OF PARKINSONISM WITH A COMBINATION OF LEVODOPA AND THE DECARBOXYLASE INHIBITOR RO-4-4602 (A COMPARISON WITH LEVODOPA TREATMENT ALONE). 151689 04-07
PHARMACOLOGICAL THERAPY OF PARKINSONISM WITH LEVODOPA. 152978 04-17
LEVODOPA FOR PARKINSONISM IN ELDERLY AND DEMENTED PATIENTS. 153263 04-11
TREATMENT OF PARKINSONS SYNDROME WITH A COMBINATION OF LEVODOPA AND THIETHYL-PERAZINE -- A PRELIMINARY STUDY. 154783 04-11
SPEECH DEFECTS OF PARKINSONIAN PATIENTS: EFFECTS OF LEVODOPA THERAPY ON SPEECH INTELLIGIBILITY. 156075 04-14
MK-486 AND LEVODOPA IN TREATMENT OF PARKINSONISM. 156739 04-07
ON-OFF PHENOMENA RELATED TO HIGH PLASMA LEVODOPA. 159552 04-15
ACID MONOAMINE METABOLITES IN THE CEREBROSPINAL FLUID OF PARKINSONIAN PATIENTS TREATED WITH LEVODOPA ALONE OR COMBINED WITH DECARBOXYLASE INHIBITOR. 160650 04-13
LEVODOPA AND DOPAMINE IN CEREBROSPINAL FLUID. 162138 04-06
SENSORIMOTOR COORDINATION IN PARKINSONS DISEASE BEFORE AND AFTER LEVODOPA THERAPY. 163805 04-13
PERMANENT DEMENTIA IN IDIOPATHIC PARKINSONISM TREATED WITH LEVODOPA. 166033 04-15

LIABILITY
ATTEMPT TO EVALUATE THE PHYSICAL DEPENDENCE LIABILITY OF PSYCHOTROPIC DRUGS IN MICE (2). 158513 04-03

LIBRIUM
LIBRIUM ATQUE VALIUM. 164621 04-17

LICKING
EFFECTS OF METHAMPHETAMINE AND CHLORDIAZEPOXIDE ON SCHEDULE CONTROLLED AND ADJUNCTIVE LICKING IN THE RAT. 157156 04-04
NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS. 160854 04-04

LICL
EFFECTS OF LICL ON AGGRESSIVE BEHAVIOUR AND BRAIN AMINES IN MICE. 158498 04-04

LIDOCAINE
ELEVATION OF LIDOCAINE SEIZURE THRESHOLD BY GALLAMINE. 163313 04-03

LIGATION
APPLICATION OF PRINCIPLES OF STEADY-STATE KINETICS TO MEASURE ACETYLCHOLINE TURNOVER RATE IN RAT SALIVARY GLANDS: EFFECT OF DEAFFERENTATION AND DUCT LIGATION. 163763 04-03

LILLIPUTIAN
COLOURED LILLIPUTIAN HALLUCINATIONS WITH AMANTADINE. 163694 04-15

LIMB
TRICYCLIC ANTIDEPRESSANTS AND LIMB REDUCTION DEFORMITIES: A FURTHER COMMUNICATION FROM THE AUSTRALIAN DRUG EVALUATION COMMITTEE. 151932 04-15

LIMBIC
EFFECT OF CLOZAPINE ON THE TURNOVER OF DOPAMINE IN THE CORPUS-STRIATUM AND IN THE LIMBIC SYSTEM.
156765 04-03

LIMBITROL
CLINICAL RESPONSE TO AMITRIPTYLINE AND CHLORDIAZEPOXIDE AMITRIPTYLINE (LIMBITROL) IN ANXIETY DEPRESSIVE STATES: A DOUBLE-BLIND STUDY.
155887 04-10

LINKS
WEIGHING EVIDENCE THAT LINKS EPILEPSY DRUGS TO FETAL DEFECTS.
161357 04-15

LIPID
A NOTE OF THE EFFECT OF (_)- AND (-)- AMPHETAMINE ON LIPID METABOLISM.
155907 04-03

EFFECT OF SOME LIPID SOLUBLE DERIVATIVES OF AMPHETAMINE ON AMPHETAMINE LEVELS IN RAT BRAIN.
163804 04-03

LIPOLYSIS
EFFECT OF AN AMPHETAMINE DERIVATIVE IN RAT ADIPOSE TISSUE LIPOLYSIS AND GLYCEROL UTILIZATION IN VITRO.
166693 04-03

LIPOMA
LIPOMA OF THE CORPUS-CALLOSUM.
155437 04-17

LITERATURE
LITERATURE REVIEW AND PROPOSAL FOR LITHIUM PROPHYLAXIS STUDIES.
150438 04-09

PAPERS ON PSYCHOPHARMACOLOGICAL RESEARCH FROM THE JAPANESE LITERATURE.
155278 04-17

A BIBLIOGRAPHY OF PAPERS FROM THE SWISS LITERATURE, 1970-1971.
166877 04-17

LITHIUM
THE MANAGEMENT OF LITHIUM IN PSYCHOTHERAPY.
150256 04-15

LITHIUM EXCRETION AND THERAPEUTIC RESPONSE.
150314 04-13

THE EFFECT OF PROLONGED LITHIUM ADMINISTRATION ON ACTIVITY, REACTIVITY, AND ENDURANCE IN THE RAT.
150324 04-04

LITHIUM CARBONATE IN THE AMBULATORY, CHRONICALLY PSYCHOTIC PATIENT.
150347 04-08

EFFECTS OF LITHIUM CHLORIDE ON THE ACTIVITY OF RATS TESTED ALONE OR IN PAIRS.
150356 04-04

LITHIUM IN MANIC-DEPRESSIVE ILLNESS.
150437 04-09

LITERATURE REVIEW AND PROPOSAL FOR LITHIUM PROPHYLAXIS STUDIES.
150438 04-09

LITHIUM CARBONATE THERAPY IN ENDOGENOUS DEPRESSION.
150746 04-09

LITHIUM THERAPY IN PSYCHIATRY.
150796 04-14

APLASTIC ANEMIA ASSOCIATED WITH LITHIUM THERAPY.
150797 04-15

THE USE OF LITHIUM CARBONATE IN THE TREATMENT OF MOOD DISORDERS.
150798 04-09

SUPPRESSION AND RECOVERY OF MOUSE KILLING IN RATS FOLLOWING IMMEDIATE LITHIUM CHLORIDE INJECTIONS.
151228 04-04

OBSERVATIONS ON THE USE OF LITHIUM SALTS IN ASSOCIATION WITH PSYCHOTROPIC DRUGS.
151265 04-09

EFFECTS OF LITHIUM ON THE ANALGESIA CAUSED BY MORPHINE AND TWO ANTIDEPRESSANTS IN MICE.
151908 04-03

ACUTE RENAL FAILURE AND LITHIUM INTOXICATION.
152032 04-15

THE 24-HOUR SERUM LITHIUM LEVEL AS A PROGNOSTICATOR OF DOSAGE REQUIREMENTS.
152911 04-16

EFFECTS OF LITHIUM AND AMITRIPTYLINE THERAPY ON SOMATOSENSORY EVOKED RESPONSE EXCITABILITY MEASUREMENTS.
153101 04-13

ORGANIC BRAIN SYNDROME DURING LITHIUM CARBONATE TREATMENT.
153271 04-15

LITHIUM TOXICITY OCCURRING WITH A REDUCING DIET.
153613 04-09

INFLUENCE OF LITHIUM CARBONATE ON PATIENTS WITH TEMPORAL EPILEPSY.
153614 04-11

LITHIUM AND PREGNANCY -- I, REPORT FROM THE REGISTER OF LITHIUM BABIES.
155041 04-15

LITHIUM AND PREGNANCY - II, HAZARDS TO WOMEN GIVEN LITHIUM DURING PREGNANCY AND DELIVERY.
155042 04-15

LITHIUM AND PREGNANCY - III, LITHIUM INGESTION BY CHILDREN BREAST-FED BY WOMEN ON LITHIUM TREATMENT.
155043 04-15

LITHIUM.
155207 04-09

EFFECT OF LITHIUM ON BRAIN DOPAMINE.
155210 04-03

T3 AND TSH RESPONSE TO TRH: NEWER ASPECTS OF LITHIUM INDUCED THYROID DISTURBANCE IN MAN.
155255 04-13

LITHIUM AND THE THYROID: CURRENT FINDINGS IN MAN.
155256 04-15

ENDOCRINE EXOPHTHALMOS DURING LITHIUM THERAPY OF MANIC-DEPRESSIVE DISEASE.
155366 04-09

LITHIUM CARBONATE IN THE TREATMENT OF HYPERACTIVE CHILDREN.
156155 04-11

LITHIUM CARBONATE AND CONVULSIVE DISORDERS.
156156 04-15

LITHIUM AS A PROPHYLACTIC AGENT IN RECURRING AFFECTIVE DISORDERS.
156416 04-09

EFFECT OF LITHIUM ON THYROXINE DISAPPEARANCE IN MAN.
156771 04-13

LITHIUM AND AMPHETAMINE: OPPOSITE EFFECTS ON THRESHOLD OF INTRACRANIAL REINFORCEMENT.
157045 04-04

INFLUENCE OF LITHIUM CARBONATE ON THE ELECTROENCEPHALOGRAM.
158330 04-13

LITHIUM CARBONATE AND IMIPRAMINE IN PREVENTION OF AFFECTIVE EPISODES.
159778 04-09

DIURNAL VARIATIONS OF LITHIUM CLEARANCE IN THE RAT.
160220 04-03

DOES LITHIUM PREVENT DEPRESSIONS BY SUPPRESSING MANIAS?
161387 04-09

LITHIUM EFFECTS ON MAGNESIUM METABOLISM IN RATS.
161390 04-03

THE EFFECT OF LITHIUM CARBONATE ON THE SLEEP OF DEPRESSED PATIENTS.
161391 04-14

THE LONG-TERM USE OF LITHIUM IN AGGRESSIVE PRISONERS.
161581 04-14

MECHANISMS OF LITHIUM ACTION.
161596 04-14

THE PREDICTION OF BRAIN LITHIUM CONCENTRATIONS FROM PLASMA OR ERYTHROCYTE MEASURES.
161731 04-03

INTRACELLULAR LITHIUM CONCENTRATION AND CLINICAL RESPONSE: TOWARDS A MEMBRANE THEORY OF DEPRESSION.
161732 04-13

LITHIUM RETENTION IN MANIA.
162172 04-09

EFFECT OF LITHIUM ON COMBATIVE BEHAVIOR IN HUMANS.
162364 04-14

LITHIUM IN RECURRENT MANIC-DEPRESSIVE DISORDER.
162380 04-09

EFFECT OF LITHIUM ON THE BLOOD AND INTESTINAL SEROTONIN CONTENTS OF RATS.
163019 04-05

ADENYL CYCLASE ACTIVITY IN KIDNEYS OF RATS WITH LITHIUM INDUCED POLYURIA.
163320 04-03

EFFECT OF LITHIUM ON BRAIN ACONITASE ACTIVITY.
163630 04-03

THE EFFECT OF LITHIUM ON ADRENERGIC FUNCTION IN DOG.
163695 04-03

EFFECT OF LITHIUM CARBONATE AND ALPHA-METHYL-P-TYROSINE ON AUDIOGENIC SEIZURE INTENSITY.
163803 04-03

LITHIUM INDUCED POLYDIPSIA AND POLYURIA: MECHANISM OF ACTION
166071 04-13

SIGNIFICANCE OF INFORMATION ON PATIENTS AND PERSONNEL EVALUATED AFTER 5000 SERUM LITHIUM VALUES.
166983 04-17

LITTER
THE EFFECT OF IMIPRAMINE ADMINISTERED BEFORE AND DURING PREGNANCY ON LITTER SIZE IN THE RAT.
163772 04-03

LIVER
EFFECTS OF CHLORPROMAZINE AND PHENOBARBITAL ON RAT LIVER AND BRAIN OXIDATIVE N-OXIDASE AND N-DEMETHYLASE ACTIVITIES.
150399 04-03

THE COMPLEXITY OF THE INHIBITORY ACTION OF DICOUMAROL ON THE MIXED FUNCTION OXIDASE SYSTEM OF RAT LIVER MICROSOMES. 150582 04-03

COMPARISON BETWEEN O-AMINOPHENOL GLUCURONIDATION IN LIVER SLICES AND HOMOGENATES FROM CONTROL AND PHENOBARBITAL TREATED WISTAR AND GUNN RATS. 151351 04-03

N-ETHYL-ALPHA-METHYL-ALPHA (M-TRIFLUOROMETHYLBENZYL)NITRONE -- THE MAJOR IN VITRO METABOLIC PRODUCT OF FENFLURAMINE IN GUINEA-PIG LIVER MICROSOMAL FRACTIONS. 151634 04-03

AFLATOXIN-B1 AND PHENOBARBITAL INDUCIBLE AFLATOXIN-DELTA2 HYDRATION BY RAT LIVER MICROSOMES. 152165 04-03

DRUG INTERACTION -- EFFECT OF CHLORPROMAZINE ON THE DISPOSITION OF 8-14C-MESCALINE IN FETAL AND MATERNAL BRAIN AND LIVER IN PREGNANT MOUSE. 155221 04-03

ANTIDEPRESSANTS AND LIVER TRYPTOPHAN PYRROLASE ACTIVITY. 155222 04-03

CANNABINOID EFFECTS ON LIVER GLYCOGEN STORES. 156321 04-03

GLYCOGEN CONTENT AND PHOSPHORYLASE ACTIVITY IN LIVER AND SKELETAL MUSCLE OF NORMAL AND CHRONICALLY MORPHINIZED RATS. 156638 04-03

TWO CANNABIDOL METABOLITES FORMED BY RAT LIVER. 156801 04-03

DIGITOXIGENIN METABOLISM BY RAT LIVER MICROSOMES AND ITS INDUCTION BY PHENOBARBITAL. 160200 04-03

EFFECT OF CHLORPROMAZINE ON 3H-PHENAZINE METHOSULFATE UPTAKE INTO VARIOUS REGIONS OF RAT BRAIN AND INTO SUBCELLULAR FRACTIONS OF BRAIN AND LIVER (IN VITRO). 160202 04-03

A COMPARISON OF THE METABOLIC EFFECTS OF GROWTH HORMONE AND GROWTH FACTOR FROM SPIROMETRA-MANSONOIDES ON RAT LIVER IN VIVO. (UNPUBLISHED PAPER). 162391 04-03

INHIBITORY EFFECT OF GEROVITAL-H3 AND PROCAINE ON MONOAMINE OXIDASE IN RAT BRAIN, LIVER, HEART AND PLATELETS. 166386 04-11

LIVERS

PHENOBARBITAL INDUCED FATTY LIVERS IN THE RAT. 163637 04-05

LOCAL

COMPARATIVE STUDY OF THE EFFICACY OF DIAZEPAM, PENTOBARBITAL, AND FENTANYL-DROPERIDOL (THALAMONAL) AGAINST TOXICITY INDUCED BY LOCAL ANESTHETICS IN MICE. 158304 04-05

EFFECTS OF DIPHENYLHYDANTOIN ON LOCAL CEREBRAL BLOOD FLOW. (UNPUBLISHED PAPER) 164809 04-03

LOCALIZATION

LOCALIZATION IN BRAIN PARTICULATE FRACTIONS OF NARCOTIC ANALGESIC DRUGS ADMINISTERED INTRACISTERNALLY TO RATS. 157185 04-03

NEW INVESTIGATIONS INTO BIOGENIC AMINES (CEREBRAL OR CELLULAR LOCALIZATION, INFLUENCE OF VARIOUS CHEMICAL FACTORS). 167085 04-03

LOCOMOTOR

EFFECTS OF AMANTADINE, AMPHETAMINE AND APOMORPHINE ON THE LOCOMOTOR ACTIVITY IN RATS. 156752 04-04

DIFFERENTIAL EFFECTS OF DELTA9-THC ON LOCOMOTOR BEHAVIOR IN ACTIVITY WHEEL HABITUATED AND NONHABITUATED RATS. 157182 04-04

SOME OBSERVATIONS ON THE CIRCADIAN RHYTHM OF LOCOMOTOR ACTIVITY OF MICE AFTER DEPLETION OF CEREBRAL MONOAMINES. 158002 04-03

THE SUPPRESSION IN RABBITS OF THE LOCOMOTOR EFFECTS OF DOPA BY DIETHYLDITHIOCARBAMATE. 161340 04-03

A COMPARISON OF THE EFFECTS OF D-AMPHETAMINE AND MORPHINE UPON THE LOCOMOTOR ACTIVITY OF MICE TREATED WITH DRUGS WHICH ALTER BRAIN CATECHOLAMINE CONTENT. 163769 04-04

EVIDENCE FOR CATECHOLAMINE INVOLVEMENT IN THE SUPPRESSION OF LOCOMOTOR ACTIVITY DUE TO HYPOXIA. 163802 04-03

LOCUS-COERULEUS

A PROJECTION OF THE NUCLEUS LOCUS-COERULEUS TO THE HIPPOCAMPUS OF THE RAT. (UNPUBLISHED PAPER). 164836 04-03

LOMOTIL

ACCIDENTAL INGESTION: METHADONE, PROPOXYPHENE (DARVON), OR DIPHENOXYLATE (LOMOTIL) POISONING. 161788 04-15

LONG-ACTING

THE EFFECTS OF LONG-ACTING THIORIDAZINE IN SOME PSYCHIATRIC DISEASES. 149744 04-11

THE PROBLEM OF CLINICAL ACTIVITY OF LONG-ACTING NEUROLEPTICS. 153278 04-10

LONG-ACTING PHENOTHIAZINES IN THE PREVENTION OF RELAPSE OF SCHIZOPHRENIC PATIENTS. 155525 04-08

EFFECTS OF LONG-ACTING FLUPHENAZINE. 156567 04-08

LONG-ACTING MORPHINE ANTAGONISTS -- POLYMER BLENDS. 160750 04-03

DRUG DEFAULTING BY PATIENTS ON LONG-ACTING PHENOTHIAZINES. 162646 04-08

LONG-ACTION

LONG-ACTION TRANQUILIZER. 158121 04-14

LONG-LASTING

DECREASED ANTINOCICEPTIVE ACTIVITY OF MORPHINE IN RATS PRETREATED INTRAVENTRICULARLY WITH 5,6 DIHYDROXYTRYPTAMINE, A LONG-LASTING SELECTIVE DEPLETOR OF BRAIN SEROTONIN. 163775 04-03

LONG-TERM

LONG-TERM INTERACTIONS OF MARIJUANA AND BEHAVIOUR IN CHIMPANZEES. 150388 04-04

SYNAPTIC ALTERATIONS IN THE RABBIT HYPOTHALAMUS FOLLOWING LONG-TERM ADMINISTRATION OF HALOPERIDOL. 150398 04-05

THE LONG-TERM EFFECT OF PERPHENAZINE ENANTHATE ON THE RAT BRAIN. SOME METABOLIC AND ANATOMICAL OBSERVATIONS. 150668 04-03

A LONG-TERM PILOT STUDY OF PIPOTHIAZINE PALMITATE IN CHRONIC SCHIZOPHRENIA. 150832 04-08

TOXIC ENCEPHALOPATHY FOLLOWING LONG-TERM ADMINISTRATION OF PHENMETRAZINE. 151376 04-15

LONG-TERM TREATMENT OF PARKINSONISM WITH L-DOPA. 151696 04-11

SYNAPTIC CHANGES IN THE RABBIT PALLIDUM FOLLOWING LONG-TERM HALOPERIDOL ADMINISTRATION. 152027 04-05

SYNAPTIC ALTERATIONS IN THE HYPOTHALAMUS OF THE RABBIT FOLLOWING LONG-TERM CHLORPROMAZINE ADMINISTRATION. 152028 04-05

LONG-TERM EFFECTS OF MORPHINE ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR OF THE RAT. 153103 04-03

HOSPITAL TESTING OF AN ORAL LONG-TERM NEUROLEPTIC: PENFLURIDOL. 156892 04-08

EFFECTS OF L-DOPA AND RESERPINE ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION. 158495 04-04

EFFECTS OF L-DOPA AND DDC ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION. 158496 04-04

LONG-TERM TOXICITY STUDY OF METHYLMERCURY CHLORIDE IN MONKEYS (SECOND REPORT). 158515 04-05

PSYCHOLOGICAL ASPECTS OF SHORT-TERM VERSUS LONG-TERM L-DOPA THERAPY IN PARKINSONISM. (PH.D. DISSERTATION). 159895 04-14

THE LONG-TERM USE OF LITHIUM IN AGGRESSIVE PRISONERS. 161581 04-14

EFFECT OF LONG-TERM FENFLURAMINE TREATMENT ON DRUG METABOLISM IN RAT. 163632 04-05

LONG-TERM RECOVERY OF SEROTONIN CONCENTRATIONS IN THE RAT CNS FOLLOWING 5,6 DIHYDROXYTRYPTAMINE. 163697 04-03

LONG-TERM USE OF MOLINDONE IN SCHIZOPHRENICS. 166715 04-08

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: III. THE EFFECTS OF AMITRIPTYLINE. 166723 04-14

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: II. THE EFFECTS OF RESERPINE. 166724 04-14

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: I. METHODOLOGY AND THE EFFECTS OF PLACEBO. 166725 04-14

LONGITUDINAL
KINETICS AND DYNAMICS OF RESPONSE TO HALOPERIDOL IN ACUTE SCHIZOPHRENIA -- A LONGITUDINAL STUDY OF THE THERAPEUTIC PROCESS.
162869 04-08

LOPREMONE
THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. I. SUBJECTIVE EXPERIENCES.
157343 04-14
THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. II. PITUITARY THYROID RESPONSES.
157344 04-13

LORAZEPAN
THE THERAPEUTIC EFFECTS OF LORAZEPAN IN PSYCHOTIC PATIENTS TREATED WITH HALOPERIDOL: A DOUBLE-BLIND STUDY.
152209 04-09

LORDOTIC
ACTIVATION OF LORDOTIC RESPONDING IN FEMALE RATS BY SUPPRESSION OF SEROTONERGIC ACTIVITY.
150380 04-04

LOSS
ACQUISITION AND LOSS OF TOLERANCE TO 1 DELTA9-TRANS-TETRAHYDROCANNABINOL IN RATS ON AN AVOIDANCE SCHEDULE.
157039 04-04

LOWERS
METHAMPHETAMINE LOWERS SELF-STIMULATION THRESHOLDS.
157083 04-04

LOXAPINE
A CONTROLLED DOUBLE-BLIND COMPARISON BETWEEN LOXAPINE SUCCINATE AND CHLORPROMAZINE IN ACUTE NEWLY HOSPITALIZED SCHIZOPHRENIC PATIENTS.
150835 04-08
LOXAPINE: A SIX-MONTH EVALUATION IN SEVERELY ILL SCHIZOPHRENIC PATIENTS.
163680 04-08

LSD
THE USE OF LSD IN THE PSYCHOANALYTIC TREATMENT OF A CASE OF ANXIETY HYSTERIA.
156920 04-10
D-LYSERGIC ACID DIETHYLAMIDE (LSD) -- EFFECT ON BIOGENIC AMINES EXCRETION IN MAN.
160802 04-13
THE INFLUENCE OF SYNTHETIC SUBSTANCE P ON TREMOR CAUSED BY LSD IN MICE.
161143 04-03
LSD ASSISTED PSYCHOTHERAPY IN PATIENTS WITH TERMINAL CANCER.
161385 04-11
PSYCHEDELIC (LSD) THERAPY OF NEUROTIC DISORDERS: SHORT-TERM EFFECTS.
162155 04-12
DISSOCIATION OF EXCITATORY AND HYPERPYREXIC EFFECTS OF LSD IN RATS TREATED WITH ALPHA-METHYLTYROSINE.
166732 04-03

LSD-LIKE
THE POSSIBLE ROLE OF TRYPTAMINE IN BRAIN FUNCTION AND ITS RELATIONSHIP TO THE ACTIONS OF LSD-LIKE HALLUCINOGENS. (UNPUBLISHED PAPER).
151656 04-03

LU-5-003
LU-5-003 IN ANTIDEPRESSIVE THERAPY. A CONTROLLED CLINICAL TEST WITH SIMULTANEOUS MEASUREMENT OF PHARMACOKINETIC PARAMETERS. PRELIMINARY REPORT.
166982 04-13

LUMBAR
EFFECT OF PARA-METHOXYPHENYLETHYLAMINE ON POLYSYNAPTIC PATHWAYS AND ON INTERNEURONS OF THE CAT LUMBAR SPINAL CORD.
157112 04-03

LUMBO-SACRAL
ANTAGONISM OF DESCENDING EFFECTS OF THE SUBSTANTIA-NIGRA ON LUMBO-SACRAL MONOSYNAPTIC REFLEXES.
160635 04-03

LYSERGIC
LYSERGIC ACID DIETHYLAMIDE: ITS EFFECTS ON HUMAN CHROMOSOMES AND THE HUMAN ORGANISM IN UTERO. A REVIEW OF CURRENT FINDINGS.
156527 04-15
EFFECTS OF LYSERGIC ACID DIETHYLAMIDE ON THE UPTAKE AND RETENTION OF BRAIN 5-HYDROXYTRYPTAMINE IN VIVO AND IN VITRO.
160646 04-03
THE SUBCELLULAR DISTRIBUTION OF LYSERGIC ACID DIETHYLAMIDE IN THE RAT BRAIN.
162956 04-03

M-TRIFLUOROMETHYLBENZYL
N-ETHYL-ALPHA-METHYL-ALPHA (M-TRIFLUOROMETHYLBENZYL)NITRONE -- THE MAJOR IN VITRO METABOLIC PRODUCT OF FENFLURAMINE IN GUINEA-PIG LIVER MICROSOMAL FRACTIONS.
151634 04-03

M-TYROSINE
THE EFFECT OF M-TYROSINE ON TREMOR AND ON ABNORMAL MOVEMENTS IN MONKEYS WITH VENTROMEDIAL TEGMENTAL LESIONS.
158274 04-03

MACACA-FUSCATA
EFFECTS OF CHLORDIAZEPOXIDE UPON SUCCESSIVE RED-GREEN DISCRIMINATION RESPONSES IN JAPANESE MONKEYS, MACACA-FUSCATA.
150325 04-04

MACAQUES
BEHAVIOR OF FREE-RANGING MACAQUES AFTER INTRAVENTRICULAR 6-HYDROXYDOPAMINE.
163161 04-04

MACROMERINE
MACROMERINE, NORMACROMERINE AND BISNORMACROMERINE: NONPSYCHOACTIVE METHYLATED DERIVATIVES OF NOREPINEPHRINE.
150298 04-04

MACROMOLECULAR
THYROID HORMONES AND CATECHOLAMINE MACROMOLECULAR MECHANISMS IN CNS.
155260 04-03

MAGNESIUM
EFFECT OF MAGNESIUM PEMOLINE AND METHYLPHENIDATE ON MEMORY IMPROVEMENT AND MOOD IN NORMAL AGING SUBJECTS.
153054 04-14
LITHIUM EFFECTS ON MAGNESIUM METABOLISM IN RATS.
161390 04-03

MAINTAINED
COMPARABLE BEHAVIOR MAINTAINED UNDER FIXED-RATIO AND SECOND-ORDER SCHEDULES OF FOOD PRESENTATION, COCAINE INJECTION OR D-AMPHETAMINE INJECTION IN THE SQUIRREL MONKEY.
159367 04-04

MAJOR
AHR-2277: A NEW MAJOR NEUROLEPTIC WITH MINIMAL NEUROLOGICAL EFFECTS.
150643 04-08
CHLORPROMAZINE HYDROXYLAMINES IN RED BLOOD CELLS AS MAJOR METABOLITES OF CHLORPROMAZINE IN MAN.
151633 04-13
N-ETHYL-ALPHA-METHYL-ALPHA (M-TRIFLUOROMETHYLBENZYL)NITRONE -- THE MAJOR IN VITRO METABOLIC PRODUCT OF FENFLURAMINE IN GUINEA-PIG LIVER MICROSOMAL FRACTIONS.
151634 04-03
TARDIVE DYSKINESIAS FROM THE MAJOR TRANQUILIZERS.
163159 04-05

MALE
PLASMA TESTOSTERONE CONTENT OF MALE PATIENTS WITH PARKINSONS DISEASE DURING L-DOPA TREATMENT WITH OR WITHOUT DOPADECARBOXYLASE INHIBITOR.
151695 04-15
ROLE OF ADRENAL HORMONES IN INCUBATION BEHAVIOR OF MALE RING DOVES (STREPTOPELIA-RISORIA).
162667 04-03
ESTROGEN IN TREATMENT OF THE MALE CLIMACTERIC.
163216 04-11
SHORT-TERM EFFECTS OF MARIJUANA SMOKING ON COGNITIVE BEHAVIOR IN EXPERIENCED MALE USERS.
163755 04-14

MALFORMATIONS
CONTRIBUTING PHARMACOLOGIC FACTORS IN MORPHINE INDUCED FETAL MALFORMATIONS (PH.D. DISSERTATION).
159483 04-03

MAMMALIAN
DELTA9-TETRAHYDROCANNABINOL: EFFECTS ON MAMMALIAN NONMYELINATED NERVE FIBERS.
150383 04-03
DOPAMINE SENSITIVE ADENYLATE CYCLASE: THE DOPAMINE RECEPTOR IN THE MAMMALIAN NERVOUS SYSTEM. (PH.D. DISSERTATION).
159484 04-01
INHIBITION OF URIDINE INCORPORATION INTO RNA IN MAMMALIAN CELLS BY AGENTS AFFECTING THE PROPERTIES OF THE CELL MEMBRANE: CHLORPROMAZINE, DIPYRIDAMOLE AND PHENYLETHANOL.
166700 04-03

MAN
EMOTIONALLY INDUCED CARDIOVASCULAR CHANGES IN MAN AS A MEANS FOR THE INVESTIGATION OF TRANQUILLIZING DRUGS.
150323 04-13
EFFECT OF TRICYCLIC ANTIDEPRESSANTS ON THE SOMATOSENSORY EVOKED POTENTIAL IN MAN.
150349 04-13
CNS EFFECTS OF PROPRANOLOL IN MAN.
150665 04-08
THE POSSIBILITY OF PREDICTING THE EFFECTS OF MARIHUANA IN MAN BY MEANS OF PHARMACOLOGICAL TESTS IN LABORATORY ANIMALS. PRELIMINARY RESULTS.
150778 04-13

INTERACTION BETWEEN CLONIDINE AND DESIPRAMINE IN MAN.
150827 04-15
RESPIRATORY EFFECTS OF HYDROMORPHONE IN MAN.
151156 04-15
RECURRENT MANIA IN A YOUNG MAN.
151439 04-09
CHLORPROMAZINE HYDROXYLAMINES IN RED BLOOD CELLS AS MAJOR METABOLITES OF CHLORPROMAZINE IN MAN.
151633 04-13
EFFECTS OF GENERAL ANESTHETICS ON MEMORY FUNCTIONS IN MAN.
151991 04-14
SOME CORRELATES OF MARIHUANA SELF-ADMINISTRATION IN MAN: A STUDY OF TITRATION OF INTAKE AS A FUNCTION OF DRUG POTENCY.
153100 04-13
T3 AND TSH RESPONSE TO TRH: NEWER ASPECTS OF LITHIUM INDUCED THYROID DISTURBANCE IN MAN.
155255 04-13
LITHIUM AND THE THYROID: CURRENT FINDINGS IN MAN.
155256 04-15
IDENTIFICATION OF 5-(3,4 DIHYDROXYPHENYL)-5 PHENYLHYDANTOIN AS A METABOLITE OF 5,5 DIPHENYLHYDANTOIN (PHENYTOIN) IN RATS AND MAN.
156650 04-06
EFFECT OF LITHIUM ON THYROXINE DISAPPEARANCE IN MAN.
156771 04-13
L-DOPA SUPPRESSION OF TRH STIMULATED PROLACTIN RELEASE IN MAN.
156772 04-13
PHARMACOLOGICAL STUDIES WITH TIPRENOLOL AND PROPRANOLOL IN MAN.
156817 04-13
INTERACTION OF BENZODIAZEPINES WITH WARFARIN IN MAN.
158302 04-13
COMPARATIVE PHARMACOKINETICS OF OXAZEPAM AND NORTRIPTYLINE AFTER SINGLE ORAL DOSES IN MAN.
160469 04-13
D-LYSERGIC ACID DIETHYLAMIDE (LSD) -- EFFECT ON BIOGENIC AMINES EXCRETION IN MAN.
160802 04-13
INFLUENCE OF SOME PSYCHOACTIVE DRUGS ON MINERAL METABOLISM IN MAN.
161388 04-08
COMPARING TERATOGENICITY IN MAN AND MONKEY.
163011 04-15
A COMPARISON OF THE PHARMACOLOGICAL ACTIVITY OF DELTA9-TETRAHYDROCANNABINOL AND ITS MONOHYDROXYLATED METABOLITES IN MAN.
163022 04-13
THE EFFECT OF N-ALKYL CHAIN LENGTH AND STEREOCHEMISTRY ON THE ABSORPTION, METABOLISM AND URINARY EXCRETION OF N-ALKYLAMPHETAMINES IN MAN.
163800 04-13
THE INFLUENCE OF PROBENECID ON THE METABOLISM OF SEROTONIN, DOPAMINE AND THEIR PRECURSORS IN MAN.
166726 04-13
TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167108 04-17
DISCUSSION OF A SURVEY OF ACADEMIC AND INDUSTRIAL SCIENTISTS ON TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167109 04-17

MANAGEMENT
THE MANAGEMENT OF LITHIUM IN PSYCHOTHERAPY.
150256 04-15
COMPARISON OF L-DOPA WITH ITS ASSOCIATION WITH AN L-DOPA DECARBOXYLASE INHIBITOR IN THE MANAGEMENT OF PARKINSONS DISEASE.
150631 04-15
MANAGEMENT OF EMOTIONAL DISTURBANCES IN GERIATRIC PATIENTS.
152031 04-11
AN ANALYTICAL SURVEY OF THE MANAGEMENT OF TRIGEMINAL NEURALGIA.
156250 04-11
MANAGEMENT OF TARDIVE DYSKINESIA WITH THIOPROPAZATE.
160825 04-13
THE MANAGEMENT OF SEVERE AGORAPHOBIA: A COMPARISON OF IPRONIAZID AND SYSTEMATIC DESENSITIZATION.
163751 04-10
OUTPATIENT MANAGEMENT OF CHRONIC SCHIZOPHRENICS WITH FLUPHENAZINE ENANTHATE (PROLIXIN ENANTHATE): A CLINICAL EVALUATION.
164217 04-08
A COMPARATIVE TRIAL OF HALOPERIDOL AND THIORIDAZINE: MANAGEMENT OF CHRONIC SCHIZOPHRENIA.
165621 04-08
EFFECTS OF MODE OF MANAGEMENT ON PLASMA CHLORPROMAZINE IN PSYCHIATRIC PATIENTS.
166721 04-08

MANDRAX
A DOUBLE-BLIND CLINICAL TRIAL OF THE NEW HYPNOTIC MANDRAX.
156359 04-07

MANIA
RECURRENT MANIA IN A YOUNG MAN.
151439 04-09
LITHIUM RETENTION IN MANIA.
162172 04-09
THE PHENOMENOLOGY OF MANIA: A NEW LOOK AT SOME OLD PATIENTS.
164719 04-09

MANIAS
DOES LITHIUM PREVENT DEPRESSIONS BY SUPPRESSING MANIAS?
161387 04-09

MANIC-DEPRESSIVE
LITHIUM IN MANIC-DEPRESSIVE ILLNESS.
150437 04-09
ENDOCRINE EXOPHTHALMOS DURING LITHIUM THERAPY OF MANIC-DEPRESSIVE DISEASE.
155366 04-09
LITHIUM IN RECURRENT MANIC-DEPRESSIVE DISORDER.
162380 04-09

MANIC-DEPRESSIVES
PROPHYLACTIC TREATMENT FOR MANIC-DEPRESSIVES.
151722 04-09

MANIFESTED
DRUG ALLERGY TO THIOXANTHENE, MANIFESTED BY THE MORPHOLOGICAL PICTURE OF ERYTHEMA EXSUDATIVUM MULTIFORME, AS A RESULT OF TAKING CLOPENTHIXOL.
152089 04-15

MAPROTILIN
CLINICAL EXPERIENCES WITH THE NEW ANTIDEPRESSANT MAPROTILIN 34276-BA.
164681 04-09

MARIHUANA
PROPRANOLOL ANTAGONISM OF MARIHUANA INDUCED TACHYCARDIA.
150404 04-15
SINGLE DOSE EFFECT OF MARIHUANA SMOKE: BRONCHIAL DYNAMICS AND RESPIRATORY CENTER SENSITIVITY IN NORMAL SUBJECTS.
150620 04-13
CHILEAN MARIHUANA: CHEMICAL COMPOSITION AND PHARMACOLOGICAL ASPECTS.
150650 04-01
THE POSSIBILITY OF PREDICTING THE EFFECTS OF MARIHUANA IN MAN BY MEANS OF PHARMACOLOGICAL TESTS IN LABORATORY ANIMALS. PRELIMINARY RESULTS.
150778 04-13
SOME CORRELATES OF MARIHUANA SELF-ADMINISTRATION IN MAN: A STUDY OF TITRATION OF INTAKE AS A FUNCTION OF DRUG POTENCY.
153100 04-13
SUBCHRONIC ORAL DOSES OF MARIHUANA EXTRACT.
153106 04-13
MARIHUANA AND RETRIEVAL FROM SHORT-TERM MEMORY.
153108 04-14
IMPAIRMENT OF LATENT LEARNING IN THE RAT BY A MARIHUANA COMPONENT.
154814 04-04
ACUTE EFFECTS OF TWO TETRAHYDROCANNABINOLS (DELTA9-THC AND DELTA8-THC) ON WATER INTAKE IN WATER DEPRIVED RATS: IMPLICATIONS FOR BEHAVIORAL STUDIES ON MARIHUANA COMPOUNDS.
157149 04-04
NEURONAL AND SOCIAL FACTORS IN THE ABUSE OF MARIHUANA.
160747 04-04
IMPAIRMENT OF PERFORMANCE WITH LOW DOSES OF MARIHUANA.
166720 04-14

MARIJUANA
LONG-TERM INTERACTIONS OF MARIJUANA AND BEHAVIOUR IN CHIMPANZEES.
150388 04-04
CANNABIS-SATIVA L. (MARIJUANA) II: STANDARDIZED AND RELIABLE MICROSCOPIC METHOD FOR DETECTION AND IDENTIFICATION OF MARIJUANA.
150419 04-01
MARIJUANA AND AMPHETAMINE: THE QUESTION OF INTERACTION.
152715 04-14
ACUTE VESTIBULAR EFFECTS OF MARIJUANA.
156642 04-13
MARIJUANA INDUCED STATE-DEPENDENT VERBAL LEARNING.
157153 04-14
SHORT-TERM EFFECTS OF MARIJUANA SMOKING ON COGNITIVE BEHAVIOR IN EXPERIENCED MALE USERS.
163755 04-14

MATERNAL
DRUG INTERACTION -- EFFECT OF CHLORPROMAZINE ON THE DISPOSITION OF 8-14C-MESCALINE IN FETAL AND MATERNAL BRAIN AND LIVER IN PREGNANT MOUSE.
155221 04-03

EFFECTS OF DRUG-INDUCED BEHAVIOR CHANGES IN HYPERACTIVE CHILDREN ON MATERNAL ATTITUDE AND PERSONALITY. (PH.D. DISSERTATION).
159130 04-14

MATURATION
DEVELOPMENTAL CHANGES IN NEUROCHEMISTRY DURING THE MATURATION OF SLEEP BEHAVIOR.
151707 04-03

MEASURE
APPLICATION OF PRINCIPLES OF STEADY-STATE KINETICS TO MEASURE ACETYLCHOLINE TURNOVER RATE IN RAT SALIVARY GLANDS: EFFECT OF DEAFFERENTATION AND DUCT LIGATION.
163763 04-03

MEASURED
ACUTE AND CHRONIC TOLERANCE TO NICOTINE MEASURED BY ACTIVITY IN RATS.
157151 04-03

MEASUREMENT
SIMULTANEOUS MEASUREMENT OF TYROSINE AND TRYPTOPHAN HYDROXYLASE ACTIVITIES IN BRAIN IN VIVO USING AN INHIBITOR OF THE AROMATIC AMINO ACID DECARBOXYLASE.
150402 04-03

MEASUREMENT AND CONTROL OF PREOPERATIVE ANXIETY.
153197 04-14

MEASUREMENT OF ANALGESIA USING A SPATIAL PREFERENCE TEST IN THE RAT.
153569 04-04

LU-5-003 IN ANTIDEPRESSIVE THERAPY. A CONTROLLED CLINICAL TEST WITH SIMULTANEOUS MEASUREMENT OF PHARMACOKINETIC PARAMETERS. PRELIMINARY REPORT.
166982 04-13

MEASUREMENTS
AVOIDANCE DECREMENT PHENOMENA AND MEASUREMENTS OF DRUG EFFECTS.
152191 04-04

EFFECTS OF LITHIUM AND AMITRIPTYLINE THERAPY ON SOMATOSENSORY EVOKED RESPONSE EXCITABILITY MEASUREMENTS.
153101 04-13

MEASURES
THE PREDICTION OF BRAIN LITHIUM CONCENTRATIONS FROM PLASMA OR ERYTHROCYTE MEASURES.
161731 04-03

MEASURING
CONVULSIONS EL'CITED BY HANDLING: A SENSITIVE METHOD OF MEASURING CNS EXCITATION IN MICE TREATED WITH RESERPINE OR CONVULSANT DRUGS.
163748 04-03

MEBUTAMATE
MEBUTAMATE AS A HYPNOTIC: CLINICAL TRIAL AND STATISTICAL CONSIDERATIONS.
166722 04-13

MECAMYLAMINE
THE EFFECT OF SMALL DOSES OF MECAMYLAMINE ON SHUTTLEBOX BEHAVIOR IN THE GUINEA-PIG.
163020 04-04

MECHANISM
INHIBITION OF BRAIN GLUTAMATE DEHYDROGENASE BY A METABOLITE OF CYCLOHEXIMIDE AND ITS RELEVANCE FOR THE MECHANISM OF AMMONIA FORMATION IN BRAIN SLICES. (UNPUBLISHED PAPER).
151650 04-03

ON THE MECHANISM OF THE ANTICONVULSIVE ACTION OF DERIVATIVES OF BENZODIAZEPINE AND DIPHENYLHYDANTOIN.
151814 04-03

MECHANISM OF THE SYNERGISTIC LETHALITY BETWEEN PENTAZOCINE AND VASOPRESSIN IN THE RAT.
157066 04-05

STUDIES ON THE MECHANISM OF CARDIAC TOXICITY OF TRICYCLIC ANTIDEPRESSANTS.
158474 04-05

POTENTIATING MECHANISM BY OUABAIN ON CONTRACTIONS OF GUINEA-PIG VAS-DEFERENS TO 5-HT AND OTHER AMINES.
158475 04-03

POSSIBLE MECHANISM OF PILOCARPINE POTENTIATION OF HEXOBARBITAL HYPNOSIS IN MICE.
158477 04-03

PHARMACOLOGICAL STUDIES ON MECHANISM OF ANTIPARKINSONIAN DRUGS (REPORT 2): ELEVATION OF STRIATAL HOMOVANILLIC ACID CONTENT BY OXOTREMORINE AND ITS MODIFICATION BY ANTICHOLINERGICS.
158501 04-03

FURTHER EVIDENCE IN SUPPORT OF A COMMON ADRENERGIC MECHANISM FOR THE FACILITATORY ACTION ON LEARNING OF AMPHETAMINE AND NICOTINE IN RATS.
158772 04-04

ANIMAL MODELS FOR AN ENZYMIC BLOOD-BRAIN BARRIER MECHANISM FOR THERAPEUTICALLY ADMINISTERED L-DOPA.
159566 04-03

INTERACTION OF COCAINE AND IPRONIAZID ON THE H3-NOREPINEPHRINE UPTAKE MECHANISM ON ISOLATED STRIP VENTRICLE OF FROG HEART.
165412 04-03

LITHIUM INDUCED POLYDIPSIA AND POLYURIA: MECHANISM OF ACTION
166071 04-13

PHARMACOLOGICAL ASPECTS OF THE WORKING MECHANISM OF NEUROLEPTICS.
166976 04-13

MECHANISMS
THYROID HORMONES AND CATECHOLAMINE MACROMOLECULAR MECHANISMS IN CNS.
155260 04-03

SOME PATHOGENIC MECHANISMS OF THE THERAPEUTIC EFFICACY OF ATROPINE IN ANANCASTIC SYNDROMES.
156555 04-10

EFFECTS OF AMPHETAMINE AND ITS HYDROXYLATED METABOLITES ON CENTRAL NORADRENERGIC MECHANISMS.
157118 04-03

INVOLVEMENT OF BRAIN CHOLINERGIC MECHANISMS IN THE ACTION OF CHLORPROMAZINE. (UNPUBLISHED PAPER).
158316 04-03

PATHOBIOLOGICAL MECHANISMS OF ANTIDEPRESSANT AND ANTIPSYCHOTIC DRUG TOXICITY. (PH.D. DISSERTATION).
159822 04-03

HYPERGLYCEMIC MECHANISMS OF CERTAIN PHENOTHIAZINE ANALOGS. (PH.D. DISSERTATION).
159828 04-03

MECHANISMS OF LITHIUM ACTION.
161596 04-14

THE EFFECT OF SOME SUBSTANCES OF THE PHENOTHIAZINE SERIES AND OF ALPHA-ADRENERGIC BLOCKING AGENTS ON SPINAL CORD ACTIVITY UNDER CONDITIONS OF DISRUPTION OF INHIBITORY MECHANISMS BY TETANUS TOXIN.
162921 04-03

BIOLOGICAL MECHANISMS UNDERLYING THE DEVELOPMENT OF BEHAVIORAL TOLERANCE TO DIISOPROPYLFLUOROPHOSPHATE. (PH.D. DISSERTATION).
163535 04-03

PARTICIPATION OF RETINAL MECHANISMS IN DMT HALLUCINATIONS.
163633 04-03

MEDAZEPAM
THE EFFECT OF MEDAZEPAM (S-804) ON THE PHOTOPALPEBRAL REFLEX.
166941 04-13

MEDIAL
INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04

MORPHINE DEPENDENCE IN RATS WITH MEDIAL FOREBRAIN BUNDLE LESIONS.
157152 04-03

THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03

MEDIATED
THE CENTRAL ACTION OF ANTIHYPERTENSIVE DRUGS, MEDIATED VIA CENTRAL ALPHA-RECEPTORS.
151626 04-13

IS THE UPTAKE OF NARCOTIC ANALGESICS BY CEREBRAL CORTICAL SLICES MEDIATED IN PART BY ACTIVE TRANSPORT?
151631 04-03

MEDIATION
POSSIBLE CATECHOLAMINE MEDIATION OF LEVALLORPHAN INDUCED BEHAVIOURAL DISRUPTION IN RATS.
157041 04-04

ON THE CENTRAL MEDIATION OF ANOREXIGENIC DRUG EFFECTS.
166690 04-03

MEDICAL
MEDICAL DRUG-INDUCED MENTAL DISORDERS.
154984 04-15

PSYCHIATRIC COMPLICATIONS OF MEDICAL DRUGS.
160942 04-15

PSYCHOTROPIC DRUGS IN USE TODAY: THE ROLE OF DIAZEPAM IN MEDICAL PRACTICE.
163165 04-17

PSYCHIATRIC COMPLICATIONS OF MEDICAL DRUGS.
163221 04-17

MEDICAL ORTHODOXY AND ORTHOMOLECULAR PSYCHIATRY.
163998 04-08

MEDICATION
UNTOWARD RESPONSES TO MEDICATION IN ADOLESCENTS.
149916 04-15

SKIN CONDUCTANCE BASAL LEVEL AND REACTIVITY IN SCHIZOPHRENIA AS A FUNCTION OF CHRONICITY, PREMORBID ADJUSTMENT, DIAGNOSIS, AND MEDICATION.
154170 04-08

EFFECTS OF MEDICATION ON THE CASEWORKER CLIENT RELATIONSHIP.
164429 04-17

SEX-ROLE DEVELOPMENT AND RESPONSE TO MEDICATION BY PSYCHIATRIC INPATIENTS.
165189 04-17

MEDICATIONS
ORAL MEDICATIONS FOR MINIMAL BRAIN DYSFUNCTION IN CHILDREN.
150550 04-11

MEDICINAL
SEVEN-MEMBERED HETEROCYCLICS OF MEDICINAL POTENTIAL.
156878 04-01

PHARMACOLOGICAL EVALUATION OF MEDICINAL PLANTS FROM WESTERN SAMOA.
157300 04-17

MEDICINE
REVIEW OF MEDICINE IN SPECIAL EDUCATION. DRUG RESEARCH: OUT OF SIGHT, OUT OF MIND.
166484 04-17

MEDULLARY
EFFECTS OF RESERPINE ON THE CONTENT AND PROPERTIES OF RAT ADRENAL MEDULLARY STORAGE VESICLES.
150580 04-03

MELLARIL
A DOUBLE-BLIND COMPARISON OF HALOPERIDOL (HALDOL) AND THIORIDAZINE (MELLARIL) IN OUTPATIENT CHILDREN.
152212 04-11

MEMBRANE
INTRACELLULAR LITHIUM CONCENTRATION AND CLINICAL RESPONSE: TOWARDS A MEMBRANE THEORY OF DEPRESSION.
161732 04-13

INHIBITION OF URIDINE INCORPORATION INTO RNA IN MAMMALIAN CELLS BY AGENTS AFFECTING THE PROPERTIES OF THE CELL MEMBRANE: CHLORPROMAZINE, DIPYRIDAMOLE AND PHENYLETHANOL.
166700 04-03

MEMORY
CYCLOHEXIMIDE AFFECTS MEMORY WITHIN MINUTES AFTER THE ONSET OF TRAINING.
150151 04-04

MEMORY TRACES: EXPERIMENTAL SEPARATION BY CYCLOHEXIMIDE AND ELECTROCONVULSIVE SHOCK.
150312 04-04

EFFECTS OF GENERAL ANESTHETICS ON MEMORY FUNCTIONS IN MAN.
151991 04-14

MEMORY STORAGE IN THREE INBRED MOUSE STRAINS AFTER INJECTION OF CYCLOHEXIMIDE.
153042 04-04

EFFECT OF MAGNESIUM PEMOLINE AND METHYLPHENIDATE ON MEMORY IMPROVEMENT AND MOOD IN NORMAL AGING SUBJECTS.
153054 04-14

MARIHUANA AND RETRIEVAL FROM SHORT-TERM MEMORY.
153108 04-14

SYNTHESIS OF SCOTOPHOBIN. A MEMORY CODE WORD.
156872 04-01

RETROACTIVE FACILITATION OF MEMORY IN GOLDFISH BY FLUROTHYL.
157036 04-04

EFFECT OF GINSENOSIDE-RGL, A SAPONIN OF PANAX GINSENG ROOT, ON LEARNING AND MEMORY IN RATS.
158490 04-04

INVOLVEMENT OF BIOGENIC AMINES IN MEMORY FORMATION: THE CENTRAL NERVOUS SYSTEM INDOLE AMINE INVOLVEMENT.
162272 04-03

MENIERES
PSYCHOPATHOLOGICAL FACTORS IN MENIERES DISEASE.
150254 04-11

THE EFFECT OF SULPIRIDE ON THE VERTIGO OF MENIERES SYNDROME AND ON PSYCHOSOMATIC VESTIBULAR DISORDER.
165755 04-12

MENTAL
NEUROLEPTIC TREATMENT OF PRISONERS WITH MENTAL ABNORMALITIES.
150749 04-11

PIPERACETAZINE IN CHRONIC MENTAL PATIENTS: CLINICAL OBSERVATIONS AND NEW URINE COLOR TEST.
150831 04-07

LEVODOPA AND MENTAL ILLNESS.
150953 04-13

MENTAL SYMPTOMS AND PARKINSONISM.
151045 04-15

BEHAVIOURAL AND DRUG TREATMENT OF CHILDREN WITH SEVERE MENTAL HANDICAP.
151452 04-11

THE INFLUENCE OF METHAMPHETAMINE AND DIAZEPAM ON THE AMPLITUDE CHANGES OF THE ACHILLES TENDON AND HOFFMANN REFLEX DURING A MENTAL TASK.
152074 04-14

MEDICAL DRUG-INDUCED MENTAL DISORDERS.
154984 04-15

PSYCHOTROPIC DRUGS, DIABETES AND CHRONIC MENTAL PATIENTS.
155888 04-15

MENTAL DISORDERS IN THE COURSE OF L-DOPA TREATMENT.
156568 04-15

DIBENCOZIDE AND ALCOHOLIC MENTAL DETERIORATION.
161279 04-11

EPILEPSY IN INHERITED MENTAL AND MOTOR DISORDERS.
165193 04-13

MENTAL PATIENTS USED IN TESTING DRUGS.
165564 04-08

MENTALLY
L-DOPA AND REM SLEEP IN NORMAL AND MENTALLY RETARDED SUBJECTS.
157496 04-14

MEPERIDINE
A STUDY OF THE TRANYLCYPROMINE MEPERIDINE INTERACTION: EFFECTS OF P-CHLOROPHENYLALANINE AND 1 5-HYDROXYTRYPTOPHAN.
157065 04-03

POSSIBLE SENSITIVITY TO MEPERIDINE IN PHENYLKETONURIA.
160147 04-15

MEPROBAMATE
THE INFLUENCE OF SOUND PRESSURE LEVEL UPON THE POTENCY OF PHENOBARBITONE SODIUM AND MEPROBAMATE AGAINST AUDIOGENIC SEIZURES IN MICE.
151591 04-04

THE EFFECTS OF BENZODIAZEPINES, MEPROBAMATE, AND BARBITURATES ON CENTRAL MONOAMINE NEURONS.
160472 04-03

MESCALINE
SCRATCHING RESPONSE INDUCED IN MICE BY MESCALINE AND RELATED AMPHETAMINE DERIVATIVES.
152431 04-04

A COMPARISON OF THE STIMULUS PROPERTIES OF MESCALINE AND 2,3,4 TRIMETHOXYPHENYLETHYLAMINE.
156645 04-04

MESCALINE: NO TOLERANCE TO EXCITATORY EFFECTS.
166067 04-04

MESCALINE-LIKE
MESCALINE-LIKE ACTIVITY OF 2-AMINO-7-HYDROXYTETRALIN.
152143 04-12

MESCALINE-14C
EFFECTS OF CHLORPROMAZINE AND HALOPERIDOL ON THE DISPOSITION OF MESCALINE-14C IN MICE.
157067 04-04

MESORIDAZINE
MESORIDAZINE VERSUS CHLORPROMAZINE IN ACUTE SCHIZOPHRENIA: A DOUBLE-BLIND INVESTIGATION.
152708 04-08

METABOLIC
THE LONG-TERM EFFECT OF PERPHENAZINE ENANTHATE ON THE RAT BRAIN. SOME METABOLIC AND ANATOMICAL OBSERVATIONS.
150668 04-03

METHAQUALONE: METABOLIC, KINETIC, AND CLINICAL PHARMACOLOGIC OBSERVATIONS.
151154 04-13

N-ETHYL-ALPHA-METHYL-ALPHA (M-TRIFLUOROMETHYLBENZYL)NITRONE – THE MAJOR IN VITRO METABOLIC PRODUCT OF FENFLURAMINE IN GUINEA-PIG LIVER MICROSOMAL FRACTIONS.
151634 04-03

METABOLIC STUDIES ON BENZODIAZEPINES IN VARIOUS ANIMAL SPECIES.
160466 04-03

IN VIVO EFFECTS OF AMPHETAMINE ON METABOLITES AND METABOLIC RATE IN BRAIN.
161379 04-03

A COMPARISON OF THE METABOLIC EFFECTS OF GROWTH HORMONE AND GROWTH FACTOR FROM SPIROMETRA-MANSONOIDES ON RAT LIVER IN VIVO. (UNPUBLISHED PAPER).
162391 04-03

PHARMACOKINETIC INTERACTION BETWEEN NEUROLEPTICS AND ANTIDEPRESSANTS: EFFECT ON ORGAN DISTRIBUTION AND METABOLIC PATTERN.
166984 04-03

METABOLISM
EXCRETION AND METABOLISM OF RESERPINE IN RENAL FAILURE.
151155 04-13

COMPARATIVE DATA FROM A STUDY OF THE METABOLISM OF BIOGENIC AMINES OF EPILEPTIC PATIENTS IN A PSYCHOTIC STATE.
151803 04-13

INTERACTION OF THE IMIDAZOLONE DERIVATIVE GPA-1851 WITH HEPATIC MICROSOMAL DRUG METABOLISM.
151906 04-03

EFFECT OF NARCOTIC AGENTS ON BRAIN METABOLISM.
152196 04-03

METABOLISM, ANTICHOLINERGIC EFFECTS, AND THERAPEUTIC OUTCOME OF DESMETHYLIMIPRAMINE IN DEPRESSIVE ILLNESS.
153121 04-09

BIOGENIC AMINES AND THEIR METABOLISM IN THE STUDY OF AGGRESSIVE BEHAVIOR IN RATS.
155248 04-04
TRH AND THYROID HORMONES: DOPA RESPONSE AND DOPA METABOLISM.
155253 04-03
METABOLISM OF AMPHETAMINE AND BETA,BETA DIFLUOROAMPHETAMINE IN PHENOBARBITAL TREATED RATS.
155493 04-03
A NOTE OF THE EFFECT OF (_)- AND (-)- AMPHETAMINE ON LIPID METABOLISM.
155907 04-03
METABOLISM OF AMITRIPTYLINE, NORTRIPTYLINE, IMIPRAMINE AND DESIPRAMINE TO YIELD HYDROXYLAMINES.
156762 04-01
STUDIES ON IN VIVO METABOLISM OF NIMETAZEPAM (S-1530) IN MICE & RATS.
158478 04-03
MONOAMINE PRECURSORS AND INDOLEAMINE METABOLISM IN DEPRESSION.
158500 04-09
EFFECT OF AMANTADINE ON SEROTONIN METABOLISM IN RAT BRAIN.
158506 04-03
EFFECT OF XANTHINOL NICOTINATE ON METABOLISM OF BRAIN CYCLIC AMP AND METABOLISM IN ELECTRICALLY STIMULATED CEREBRAL TISSUE.
158511 04-03
EFFECTS OF DIETHYLDITHIOCARBAMATE AND ETHANOL ON THE IN VIVO METABOLISM AND PHARMACOKINETICS OF AMPHETAMINE IN THE RAT.
158775 04-03
SEROTONIN METABOLISM IN RAT BRAIN AFTER SURGICAL DIVERSION OF THE PORTAL VENOUS CIRCULATION.
159449 04-03
METABOLISM OF SOME PSYCHOACTIVE COMPOUNDS. (PH.D. DISSERTATION).
159816 04-03
METABOLISM AND DISTRIBUTION OF CANNABINOIDS IN RATS AFTER DIFFERENT METHODS OF ADMINISTRATION.
160198 04-03
DIGITOXIGENIN METABOLISM BY RAT LIVER MICROSOMES AND ITS INDUCTION BY PHENOBARBITAL.
160200 04-03
THE METABOLISM OF INDOLEALKYLAMINES BY TYPE A AND B MONOAMINE OXIDASE OF BRAIN. (UNPUBLISHED PAPER).
160457 04-03
PATHWAYS OF METABOLISM OF THE BENZODIAZEPINES.
160465 04-13
PHARMACOKINETICS AND METABOLISM OF THE HYPNOTIC NITRAZEPAM.
160467 04-13
EFFECT OF BENZODIAZEPINES ON CARBOHYDRATE METABOLISM IN RAT BRAIN.
160476 04-03
ETHANOL AND ACETALDEHYDE METABOLISM IN RAT STRAINS GENETICALLY SELECTED FOR THEIR ETHANOL PREFERENCE.
160542 04-03
DOPAMINE DERIVED TETRAHYDROISOQUINOLINE ALKALOIDS -- INHIBITORS OF NEUROAMINE METABOLISM.
160546 04-03
EFFECT OF CHLORIMIPRAMINE ON THE METABOLISM OF 5-HYDROXYTRYPTAMINE IN THE RAT BRAIN.
160647 04-03
HIPPOCAMPAL EPILEPSY PRODUCED BY OUABAIN: STUDIES OF CEREBRAL CIRCULATION AND IONIC METABOLISM.
160649 04-03
THE EFFECT OF HEXAFLUORODIETHYL ETHER (FLUROTHYL) ON THE METABOLISM OF RAT BRAIN AMINO ACIDS LABELLED BY (U-14C)GLUCOSE.
160767 04-03
INFLUENCE OF SOME PSYCHOACTIVE DRUGS ON MINERAL METABOLISM IN MAN.
161388 04-08
LITHIUM EFFECTS ON MAGNESIUM METABOLISM IN RATS.
161390 04-03
EFFECT OF TWO ACTH ANALOGS ON NORADRENALINE METABOLISM IN RAT BRAIN.
162895 04-03
THE IN VIVO EFFECT OF TROPOLONE ON DOPAMINE METABOLISM AND THE CATECHOL-O-METHYLTRANSFERASE ACTIVITY IN THE STRIATUM OF THE RAT.
163321 04-03
EFFECT OF LONG-TERM FENFLURAMINE TREATMENT ON DRUG METABOLISM IN RAT.
163632 04-05
SOME EFFECTS OF THE HALLUCINOGENIC DRUG 2,5 DIMETHOXY-4-METHYLAMPHETAMINE ON THE METABOLISM OF BIOGENIC AMINES IN THE RAT BRAIN.
163749 04-03
THE EFFECT OF N-ALKYL CHAIN LENGTH AND STEREOCHEMISTRY ON THE ABSORPTION, METABOLISM AND URINARY EXCRETION OF N-ALKYLAMPHETAMINES IN MAN.
163800 04-13
THE METABOLISM OF 3H-TYROSINE AND 3H-DIHYDROXYPHENYLALANINE IN PARKINSONS DISEASE. (PH.D. DISSERTATION).
164443 04-13
METABOLISM OF TRYPTOPHAN IN DEPRESSIVE DISEASE.
164720 04-09
EFFECTS OF MORPHINE AND ANALOGUES ON CELL METABOLISM.
164858 04-03
ESTIMATION OF BRAIN AMINE METABOLISM IN AFFECTIVE ILLNESS: CEREBROSPINAL FLUID STUDIES UTILIZING PROBENECID.
164871 04-11
METABOLISM OF AMPHETAMINES. IDENTIFICATION OF N-OXYGENATED PRODUCTS BY GAS CHROMATOGRAPHY AND MASS SPECTROMETRY.
165998 04-06
UPTAKE AND METABOLISM OF L-3,4 DIHYDROXYPHENYLALANINE (DOPA) IN RAT TISSUES.
166022 04-05
5-HYDROXYTRYPTAMINE METABOLISM, SUPERIOR-COLLICULUS, AND GROOMING BEHAVIOR IN CATS WITH PONTILE LESIONS.
166157 04-03
DIAZEPAM METABOLISM AND ANTICONVULSANT ACTIVITY IN NEWBORN ANIMALS.
166691 04-03
EFFECTS OF P-CHLOROPHENYLALANINE AND 5-HYDROXYTRYPTOPHAN ON SLEEP - WAKEFULNESS AND THE CENTRAL METABOLISM OF MONOAMINES AND PROTEINS IN THE CAT.
166692 04-04
EFFECT OF D-AMPHETAMINE ON THE TURNOVER, SYNTHESIS AND METABOLISM OF BRAIN PHOSPHATIDYLCHOLINE.
166697 04-03
MODIFICATION OF SEROTONIN METABOLISM IN RAT BRAIN AFTER ACUTE OR CHRONIC ADMINISTRATION OF MORPHINE.
166698 04-03
THE INFLUENCE OF PROBENECID ON THE METABOLISM OF SEROTONIN, DOPAMINE AND THEIR PRECURSORS IN MAN.
166726 04-13
CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE: STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER).
166960 04-09

METABOLITE

INHIBITION OF BRAIN GLUTAMATE DEHYDROGENASE BY A METABOLITE OF CYCLOHEXIMIDE AND ITS RELEVANCE FOR THE MECHANISM OF AMMONIA FORMATION IN BRAIN SLICES. (UNPUBLISHED PAPER).
151650 04-03
HUMAN METABOLITE OF NALTREXONE (N-CYCLOPROPYLMETHYLNOROXYMORPHONE) WITH A NOVEL C-6 ISOMORPHINE CONFIGURATION. (UNPUBLISHED PAPER).
152201 04-13
IDENTIFICATION OF 5-(3,4 DIHYDROXYPHENYL)-5 PHENYLHYDANTOIN AS A METABOLITE OF 5,5 DIPHENYLHYDANTOIN (PHENYTOIN) IN RATS AND MAN.
156650 04-06
THE IDENTIFICATION, PROPERTIES AND ANALYSIS OF N-HYDROXYAMPHETAMINE -- A METABOLITE OF AMPHETAMINE.
156761 04-01
PLASMA PROTEIN BINDING OF 7-HYDROXY-DELTA1-TETRAHYDROCANNABINOL: AN ACTIVE DELTA1-TETRAHYDROCANNABINOL METABOLITE.
156799 04-03

METABOLITES

BRAIN CATECHOLAMINES AND THEIR METABOLITES IN PARKINSONIAN PATIENTS: TREATMENT WITH LEVODOPA ALONE OR COMBINED WITH A DECARBOXYLASE INHIBITOR.
150218 04-13
URINARY EXCRETION OF MONOAMINES AND METABOLITES IN PATIENTS DEPENDENT ON AND WITHDRAWN FROM BARBITURATES.
150293 04-13
THE EXCRETION OF L-DOPA METABOLITES AT DIFFERENT HOURS OF THE DAY.
150836 04-13
CHLORPROMAZINE HYDROXYLAMINES IN RED BLOOD CELLS AS MAJOR METABOLITES OF CHLORPROMAZINE IN MAN.
151633 04-13
THE EXCRETION OF NOREPINEPHRINE AND DOPAMINE ALCOHOLIC METABOLITES AFTER 6-HYDROXYDOPAMINE. (UNPUBLISHED PAPER).
151643 04-03
ACTIVITY OF BRAIN PHENOLSULFOTRANSFERASE FOR THE CATECHOLAMINES AND THEIR METABOLITES. (UNPUBLISHED PAPER).
151657 04-03
BILIARY AND URINARY ELIMINATION OF METHADONE AND ITS METABOLITES IN THE RAT.
152098 04-03

ABNORMAL O-METHYLATED DOPAMINE METABOLITES: THE ENDOGENOUS TOXINS OF SCHIZOPHRENIA OR PARKINSONISM
155905 04-13
TWO CANNABIDOL METABOLITES FORMED BY RAT LIVER.
156801 04-03
EFFECTS OF AMPHETAMINE AND ITS HYDROXYLATED METABOLITES ON CENTRAL NORADRENERGIC MECHANISMS.
157118 04-03
THE EFFECTS OF ANALGESICS AND NEUROLEPTICS ON THE RELEASE OF MONOAMINE METABOLITES INTO THE LATERAL CEREBRAL VENTRICLE OF RABBIT.
158482 04-03
THE EFFECT OF PHENOBARBITONE ANESTHESIA UPON SOME ORGANIC PHOSPHATES, GLYCOLYTIC METABOLITES AND CITRIC ACID CYCLE ASSOCIATED INTERMEDIATES OF THE RAT BRAIN.
160226 04-03
PHARMACOLOGICAL ACTIVITY OF SOME BENZODIAZEPINES AND THEIR METABOLITES.
160464 04-05
KINETICS OF THE DISTRIBUTION OF 14C-DIAZEPAM AND ITS METABOLITES IN VARIOUS AREAS OF CAT BRAIN.
160478 04-03
ACID MONOAMINE METABOLITES IN THE CEREBROSPINAL FLUID OF PARKINSONIAN PATIENTS TREATED WITH LEVODOPA ALONE OR COMBINED WITH DECARBOXYLASE INHIBITOR.
160650 04-13
ANALYSIS OF CANNABIS METABOLITES IN BIOLOGICAL FLUIDS.
160748 04-03
IN VIVO EFFECTS OF AMPHETAMINE ON METABOLITES AND METABOLIC RATE IN BRAIN.
161379 04-03
A COMPARISON OF THE PHARMACOLOGICAL ACTIVITY OF DELTA9-TETRAHYDROCANNABINOL AND ITS MONOHYDROXYLATED METABOLITES IN MAN.
163022 04-13
BIOLOGICAL ACTIVITY OF PENTOBARBITAL METABOLITES.
164240 04-02

METABOLIZING
INTERACTIONS OF SEVERAL CANNABINOIDS WITH THE HEPATIC DRUG METABOLIZING SYSTEM.
166689 04-03

METAL
METAL CHELATION OF CHLORPROMAZINES.
166902 04-03

METHADONE
CIRCADIAN VARIATION OF THE LETHALITY OF METHADONE.
150386 04-03
BILIARY AND URINARY ELIMINATION OF METHADONE AND ITS METABOLITES IN THE RAT.
152098 04-03
ACCIDENTAL INGESTION: METHADONE, PROPOXYPHENE (DARVON), OR DIPHENOXYLATE (LOMOTIL) POISONING.
161788 04-15

METHAMPHETAMINE
THE EFFECT OF A STIMULANT DRUG (METHAMPHETAMINE) ON COGNITIVE IMPULSIVITY, PLANNING, NEW LEARNING, AND SOCIAL BEHAVIOR IN HYPERACTIVE CHILDREN. (PH.D. DISSERTATION).
149717 04-14
THE INFLUENCE OF METHAMPHETAMINE AND DIAZEPAM ON THE AMPLITUDE CHANGES OF THE ACHILLES TENDON AND HOFFMANN REFLEX DURING A MENTAL TASK.
152074 04-14
EFFECTS OF FOOD DEPRIVATION AND INITIAL LEVELS ON A WHEEL-RUNNING RESPONSE TO METHAMPHETAMINE.
152354 04-03
CONDITIONED AVERSION TO A PREFERRED SOLUTION FOLLOWING METHAMPHETAMINE INJECTIONS.
153105 04-04
THE DEMETHYLATION OF METHAMPHETAMINE BY INTESTINAL MICROFLORA.
155908 04-13
ADRENAL AND STRIATAL TYROSINE HYDROXYLASE ACTIVITY AFTER METHAMPHETAMINE.
156644 04-03
METHAMPHETAMINE LOWERS SELF-STIMULATION THRESHOLDS.
157083 04-04
EFFECTS OF METHAMPHETAMINE AND CHLORDIAZEPOXIDE ON SCHEDULE CONTROLLED AND ADJUNCTIVE LICKING IN THE RAT.
157156 04-04
DIURNAL RHYTHM IN BEHAVIORAL EFFECTS OF METHAMPHETAMINE, P-CHLOROMETHAMPHETAMINE AND SCOPOLAMINE.
159366 04-04
EFFECTS OF REPEATED ADMINISTRATION OF DL-AMPHETAMINE AND METHAMPHETAMINE ON TOLERANCE TO HYPERACTIVITY.
162959 04-04
EFFECTS OF CHLORPROMAZINE AND METHAMPHETAMINE ON SOCIABILITY IN RATS.
163752 04-04
BEHAVIORAL EFFECTS OF DIAZEPAM, PENTOBARBITAL, METHAMPHETAMINE AND THEIR COMBINATIONS ON DRL 20SEC FOR WATER.
165647 04-04
OLFACTORY FOREBRAIN SEIZURES INDUCED BY METHAMPHETAMINE AND DISULFIRAM.
166064 04-03

METHAQUALONE
METHAQUALONE: METABOLIC, KINETIC, AND CLINICAL PHARMACOLOGIC OBSERVATIONS.
151154 04-13
NONMEDICAL USE OF METHAQUALONE.
156153 04-15
BIOAVALABILITY OF METHAQUALONE.
166717 04-13
EXCESSIVE REACTION TO METHAQUALONE HCL DURING BIOAVAILABILITY STUDY.
166735 04-15
TIGHT NEW RULES FOR METHAQUALONE.
167120 04-17

METHIMAZOLE
INHIBITION OF BRAIN DOPAMINE-BETA-HYDROXYLASE ACTIVITY BY METHIMAZOLE.
156322 04-03

METHOD
CANNABIS-SATIVA L. (MARIJUANA) II: STANDARDIZED AND RELIABLE MICROSCOPIC METHOD FOR DETECTION AND IDENTIFICATION OF MARIJUANA.
150419 04-01
CONVULSIONS ELICITED BY HANDLING: A SENSITIVE METHOD OF MEASURING CNS EXCITATION IN MICE TREATED WITH RESERPINE OR CONVULSANT DRUGS.
163748 04-03

METHODOLOGICAL
METHODOLOGICAL CONSIDERATIONS IN TRANSCULTURAL PSYCHOPHARMACOLOGY.
155261 04-17

METHODOLOGY
THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: I. METHODOLOGY AND THE EFFECTS OF PLACEBO.
166725 04-14

METHODS
CENTRAL NERVOUS ACTIONS AND SCREENING METHODS OF ANTIDEPRESSANTS.
150397 04-03
METABOLISM AND DISTRIBUTION OF CANNABINOIDS IN RATS AFTER DIFFERENT METHODS OF ADMINISTRATION.
160198 04-03
MODERN TRENDS IN THE DIAGNOSIS AND TREATMENT OF DEPRESSION: CHANGES IN TREATMENT METHODS AND THEIR RESULTS.
166934 04-09

METHOHEXITAL
COMPARATIVE EFFECTIVENESS OF NATURAL SLEEP AND METHOHEXITAL: PROVOCATIVE TESTS IN ELECTROENCEPHALOGRAPHY.
161331 04-11

METHOSULFATE
EFFECT OF CHLORPROMAZINE ON 3H-PHENAZINE METHOSULFATE UPTAKE INTO VARIOUS REGIONS OF RAT BRAIN AND INTO SUBCELLULAR FRACTIONS OF BRAIN AND LIVER (IN VITRO).
160202 04-03

METHOTREXATE
ENCEPHALOPATHY IN ACUTE LEUKEMIA ASSOCIATED WITH METHOTREXATE THERAPY.
152036 04-15

METHYL
PARAMAGNETIC ION INDUCED SHIFTS IN THE NMR SPECTRA OF RESERPINE AND METHYL 3,4,5 TRIMETHOXYBENZOATE.
156867 04-06

METHYLAMPHETAMINE
SELF-ADMINISTRATION OF OPTICAL ISOMERS OF AMPHETAMINE AND METHYLAMPHETAMINE BY RATS.
163766 04-04

METHYLATED
MACROMERINE, NORMACROMERINE AND BISNORMACROMERINE: NONPSYCHOACTIVE METHYLATED DERIVATIVES OF NOREPINEPHRINE.
150298 04-04

METHYLATION
EVIDENCE FOR THE METHYLATION OF APOMORPHINE BY CATECHOL-O-METHYLTRANSFERASE IN VIVO AND IN VITRO.
160545 04-03

METHYLDOPA
INTERACTION BETWEEN LEVODOPA AND METHYLDOPA.
151048 04-15

METHYLENEDIOXYPHENYLISOPROPYLAMINE
ANIMAL PHARMACOLOGY AND HUMAN PSYCHOPHARMACOLOGY OF 3-METHOXY-4,5 METHYLENEDIOXYPHENYLISOPROPYLAMINE (MMDA).
167041 04-01

METHYLMERCURIC
EMBRYO FETOTOXIC EFFECT OF METHYLMERCURIC CHLORIDE IN RATS AND MICE.
165730 04-05

METHYLMERCURY
TASTE AVERSIONS AND ACUTE METHYLMERCURY POISONING IN RATS.
155341 04-05
LONG-TERM TOXICITY STUDY OF METHYLMERCURY CHLORIDE IN MONKEYS (SECOND REPORT).
158515 04-05

METHYLPHENIDATE
EXTINCTION OF AVOIDANCE IN RATS: THE EFFECTS OF CHLORPROMAZINE AND METHYLPHENIDATE ADMINISTERED IN CONJUNCTION WITH FLOODING RESPONSE (PREVENTION).
152525 04-04
EFFECT OF MAGNESIUM PEMOLINE AND METHYLPHENIDATE ON MEMORY IMPROVEMENT AND MOOD IN NORMAL AGING SUBJECTS.
153054 04-14
METHYLPHENIDATE IN TARDIVE DYSKINESIA.
160824 04-13
REDUCTION OF HYPERACTIVE BEHAVIOR BY CONDITIONING PROCEDURES ALONE AND COMBINED WITH METHYLPHENIDATE (RITALIN).
161049 04-14
THE EFFECTS OF METHYLPHENIDATE (RITALIN) UPON PERFORMANCE IN THE SUCCESSIVE DISCRIMINATION REVERSAL SITUATION. (PH.D. DISSERTATION).
163119 04-04

METHYLXANTHINES
INHIBITORY EFFECT OF METHYLXANTHINES ON THE ADENOSINE STIMULATED FORMATION OF CYCLIC AMP IN BRAIN SLICES.
158512 04-03

METHYSERGIDE
SEROTONIN RECEPTORS OF THE RAT BRAIN, THEIR INTERACTIONS WITH METHYSERGIDE. (PH.D. DISSERTATION).
163029 04-03

METIAPINE
A CONTROLLED COMPARISON OF METIAPINE AND CHLORPROMAZINE IN CHRONIC SCHIZOPHRENIA.
166718 04-08

METRAZOL
SPONTANEOUS RELEASE AND DURING METRAZOL CONVULSIONS OF 5-HYDROXYTRYPTAMINE IN SOME BRAIN REGIONS OF CONSCIOUS CAT.
162056 04-03

MEXICO
NEW DRUG DEVELOPMENTS IN THE LATIN-AMERICAS (ARGENTINA, COSTA-RICA, MEXICO, AND PANAMA).
155273 04-17

MHPG
NOREPINEPHRINE (NE) TURNOVER IN THE CENTRAL NERVOUS SYSTEM (CNS) -- ESTIMATED IN THE RAT FROM URINARY 3-METHOXY-4-HYDROXYPHENYLGLYCOL (MHPG) EXCRETION. (UNPUBLISHED PAPER
165941 04-03
CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE: STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER).
166960 04-09

MICE
EFFECTS OF L-TRYPTOPHAN ON MOTOR ACTIVITY IN MICE.
150296 04-04
DECREASED SENSITIVITY OF SEPTAL MICE TO IMPAIRMENT OF TWO-WAY AVOIDANCE BY CHLORPROMAZINE.
150350 04-04
II. THE EFFECTS OF SOME HALLUCINOGENS ON AGGRESSIVENESS OF MICE AND RATS.
150406 04-04
THE INFLUENCE OF SOUND PRESSURE LEVEL UPON THE POTENCY OF PHENOBARBITONE SODIUM AND MEPROBAMATE AGAINST AUDIOGENIC SEIZURES IN MICE.
151591 04-04
EFFECTS OF LITHIUM ON THE ANALGESIA CAUSED BY MORPHINE AND TWO ANTIDEPRESSANTS IN MICE.
151908 04-03
SCRATCHING RESPONSE INDUCED IN MICE BY MESCALINE AND RELATED AMPHETAMINE DERIVATIVES.
152431 04-04
THE EFFECTS OF BENZODIAZEPINES ON THE BEHAVIOUR OF MICE ON A HOLE-BOARD.
153102 04-04
AN EVALUATION OF TIME-DEPENDENT CHANGES IN SUSCEPTIBILITY OF MICE TO PENTOBARBITAL INJECTION.
156809 04-04
ACUTE AND CHRONIC EFFECTS OF D- AND L-AMPHETAMINE ON SEIZURE SUSCEPTIBILITY IN MICE.
156821 04-03
EFFECTS OF CHLORPROMAZINE AND HALOPERIDOL ON THE DISPOSITION OF MESCALINE-14C IN MICE.
157067 04-04
THE ROLE OF DOPAMINE AND NOREPINEPHRINE IN THE NALOXONE INDUCED ABSTINENCE OF MORPHINE DEPENDENT MICE.
157116 04-03
THE EFFECT OF ALPHA-AMANITIN ON PASSIVE AND ACTIVE AVOIDANCE ACQUISITION IN MICE.
157154 04-04
EFFECT OF PROPRANOLOL ON FREE FATTY ACIDS OF MICE PLASMA DURING A PASSIVE AVOIDANCE TEST.
157155 04-03
EFFECTS OF RESERPINE, 6-HYDROXYDOPAMINE, P-CHLOROPHENYLALANINE AND A COMBINATION OF THESE SUBSTANCES ON THE GROOMING BEHAVIOUR OF MICE.
158001 04-04
SOME OBSERVATIONS ON THE CIRCADIAN RHYTHM OF LOCOMOTOR ACTIVITY OF MICE AFTER DEPLETION OF CEREBRAL MONOAMINES.
158002 04-03
ACTIVITY OF BENZODIAZEPINES ON AGGRESSIVE BEHAVIOR IN RATS AND MICE.
158287 04-04
COMPARATIVE STUDY OF THE EFFICACY OF DIAZEPAM, PENTOBARBITAL, AND FENTANYL-DROPERIDOL (THALAMONAL) AGAINST TOXICITY INDUCED BY LOCAL ANESTHETICS IN MICE.
158304 04-05
POSSIBLE MECHANISM OF PILOCARPINE POTENTIATION OF HEXOBARBITAL HYPNOSIS IN MICE.
158477 04-03
STUDIES ON IN VIVO METABOLISM OF NIMETAZEPAM (S-1530) IN MICE & RATS.
158478 04-03
CHARACTERISTICS OF ABNORMAL BEHAVIOR INDUCED BY 2-(2,6 DICHLOROPHENYLAMINO)-2 IMIDAZOLINE (ST-155) IN MICE.
158494 04-04
EFFECTS OF L-DOPA AND RESERPINE ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158495 04-04
EFFECTS OF L-DOPA AND DDC ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158496 04-04
EFFECTS OF LICL ON AGGRESSIVE BEHAVIOUR AND BRAIN AMINES IN MICE.
158498 04-04
ATTEMPT TO EVALUATE THE PHYSICAL DEPENDENCE LIABILITY OF PSYCHOTROPIC DRUGS IN MICE (2).
158513 04-03
FACTORS INVOLVED IN ETHANOL NARCOSIS: ANALYSIS IN MICE OF THREE INBRED STRAINS.
159567 04-03
GROWTH RETARDATION IN YOUNG MICE TREATED WITH DL-METHADONE.
159654 04-03
NATURE AND AMPLITUDE OF THE EFFECTS OF ACETOXYCYCLOHEXIMIDE ON THE RETENTION OF AN INSTRUMENTAL TASK IN MICE.
161123 04-04
THE INFLUENCE OF SYNTHETIC SUBSTANCE P ON TREMOR CAUSED BY LSD IN MICE.
161143 04-03
INTERACTION OF CHLORAMPHENICOL AND DELTA1-TETRAHYDROCANNABINOL IN BARBITAL ANESTHETIZED MICE.
162055 04-02
EFFECT OF N6O2-DIBUTYRYL CYCLIC 3,5 ADENOSINE MONOPHOSPHATE ON THE PINOCYTOSIS OF BRAIN CAPILLARIES OF MICE.
162960 04-03
THE EFFECTS OF ATROPINE AND ESERINE ON SPATIAL DISCRIMINATION IN C57BL/10 MICE. (PH.D. DISSERTATION).
163132 04-04
THE BEHAVIORAL EFFECTS OF DIBUTYRYL CYCLIC AMP IN MICE.
163696 04-04
CONVULSIONS ELICITED BY HANDLING: A SENSITIVE METHOD OF MEASURING CNS EXCITATION IN MICE TREATED WITH RESERPINE OR CONVULSANT DRUGS.
163748 04-03
A COMPARISON OF THE EFFECTS OF D-AMPHETAMINE AND MORPHINE UPON THE LOCOMOTOR ACTIVITY OF MICE TREATED WITH DRUGS WHICH ALTER BRAIN CATECHOLAMINE CONTENT.
163769 04-04
EFFECTS OF D-AMPHETAMINE ON THE INCORPORATION OF CARBON ATOMS OF D-MANNOSE INTO THE BRAINS AND SERA OF DIFFERENTIALLY HOUSED MICE: SHORT-TERM REVERSIBILITY OF THESE EFFECTS.
163779 04-03
PENTYLENETETRAZOL CONVULSIONS AND BRAIN CATECHOLAMINE TURNOVER RATE IN RATS AND MICE RECEIVING DIPHENYLHYDANTOIN AND BENZODIAZEPINES.
164834 04-03
A DEVICE FOR ANALYZING DRUG-INDUCED RESPONSES IN FREELY MOVING MICE.
165729 04-06

EMBRYO FETOTOXIC EFFECT OF METHYLMERCURIC CHLORIDE IN RATS AND MICE.
165730 04-05
SERUM AND BRAIN CONCENTRATIONS OF PENTAZOCINE IN RELATION TO ANALGESIC ACTIVITY IN MICE.
167018 04-03

MICHAUX
HENRI MICHAUX AND PSYCHOPATHOLOGICAL RESEARCH.
163264 04-12

MICROELECTROPHORETICALLY
THE REFLECTION OF EJECTING AND RETAINING CURRENTS IN THE TIME COURSE OF NEURONAL RESPONSES TO MICROELECTROPHORETICALLY APPLIED DRUGS.
158768 04-03

MICROFLORA
THE DEMETHYLATION OF METHAMPHETAMINE BY INTESTINAL MICROFLORA.
155908 04-13

MICROIONTOPHORETIC
MICROIONTOPHORETIC STUDIES OF CONFORMATIONALLY RESTRICTED ANALOGUES OF GAMMA-AMINOBUTYRATE OF RAT HIPPOCAMPAL NEURONS. (UNPUBLISHED PAPER).
151435 04-03

MICROSCOPIC
CANNABIS-SATIVA L. (MARIJUANA) II: STANDARDIZED AND RELIABLE MICROSCOPIC METHOD FOR DETECTION AND IDENTIFICATION OF MARIJUANA.
150419 04-01

MICROSOMAL
N-ETHYL-ALPHA-METHYL-ALPHA (M-TRIFLUOROMETHYLBENZYL)NITRONE -- THE MAJOR IN VITRO METABOLIC PRODUCT OF FENFLURAMINE IN GUINEA-PIG LIVER MICROSOMAL FRACTIONS.
151634 04-03
INTERACTION OF THE IMIDAZOLONE DERIVATIVE GPA-1851 WITH HEPATIC MICROSOMAL DRUG METABOLISM.
151906 04-03

MICROSOMES
THE COMPLEXITY OF THE INHIBITORY ACTION OF DICOUMAROL ON THE MIXED FUNCTION OXIDASE SYSTEM OF RAT LIVER MICROSOMES.
150582 04-03
AFLATOXIN-B1 AND PHENOBARBITAL INDUCIBLE AFLATOXIN-DELTA2 HYDRATION BY RAT LIVER MICROSOMES.
152165 04-03
DIGITOXIGENIN METABOLISM BY RAT LIVER MICROSOMES AND ITS INDUCTION BY PHENOBARBITAL.
160200 04-03

MIND
REVIEW OF MEDICINE IN SPECIAL EDUCATION. DRUG RESEARCH: OUT OF SIGHT, OUT OF MIND.
166484 04-17

MIND-ALTERING
THE THERAPEUTIC FUTURE OF MIND-ALTERING DRUGS.
154830 04-17

MINERAL
INFLUENCE OF SOME PSYCHOACTIVE DRUGS ON MINERAL METABOLISM IN MAN.
161388 04-08

MINI-PILL
EJACULATIO-PRAECOX: TREATMENT WITH THE MINI-PILL.
160975 04-14

MINIMAL
ORAL MEDICATIONS FOR MINIMAL BRAIN DYSFUNCTION IN CHILDREN.
150550 04-11
AHR-2277: A NEW MAJOR NEUROLEPTIC WITH MINIMAL NEUROLOGICAL EFFECTS.
150643 04-08
GILLES-DE-LA-TOURETTES DISEASE AND MINIMAL BRAIN DYSFUNCTION: AMPHETAMINE ISOMERS REVEAL CATECHOLAMINE CORRELATES IN AN AFFECTED PATIENT.
153097 04-11
THE ROLE OF BIOGENIC AMINES IN THE RESERPINE INDUCED ALTERATION OF MINIMAL ELECTROSHOCK SEIZURE THRESHOLDS IN THE MOUSE.
160639 04-03

MINOR
MINOR TRANQUILIZERS, HYPNOTICS, AND SEDATIVES.
155058 04-17
ON ALKALOIDS. XXV. MINOR ALKALOIDS OF POPPY CAPSULES.
167017 04-01

MINUTES
CYCLOHEXIMIDE AFFECTS MEMORY WITHIN MINUTES AFTER THE ONSET OF TRAINING.
150151 04-04

MISCELLANY
CLINICAL TOXICOLOGY VII. POISONING BY SALICYLATES, PARACETAMOL, TRICYCLIC ANTIDEPRESSANTS AND A MISCELLANY OF DRUGS.
159588 04-15

MISUSED
ARE PSYCHOTROPIC DRUGS BEING MISUSED?
163002 04-17

MITOCHONDRIA
EFFECTS OF L-DOPA AND RESERPINE ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158495 04-04
EFFECTS OF L-DOPA AND DDC ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158496 04-04

MIXED
THE COMPLEXITY OF THE INHIBITORY ACTION OF DICOUMAROL ON THE MIXED FUNCTION OXIDASE SYSTEM OF RAT LIVER MICROSOMES.
150582 04-03
PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09
THIORIDAZINE: ALLEVIATION OF THE MIXED ANXIETY DEPRESSIVE PSYCHONEUROTIC STATE.
159067 04-14

MK-486
BLOOD-BRAIN BARRIER TO CARBIDOPA (MK-486) AND RO-4-4602, PERIPHERAL DOPA DECARBOXYLASE INHIBITORS.
155906 04-03
MK-486 AND LEVODOPA IN TREATMENT OF PARKINSONISM.
156739 04-07

MMDA
ANIMAL PHARMACOLOGY AND HUMAN PSYCHOPHARMACOLOGY OF 3-METHOXY-4,5 METHYLENEDIOXYPHENYLISOPROPYLAMINE (MMDA).
167041 04-01

MOBILITY
INFLUENCE OF TIZERTSINE AND TRIFLUOPERAZINE ON MOBILITY OF MAIN NERVOUS PROCESSES IN PATIENTS WITH PRESENILE PSYCHOSIS.
156588 04-11

MOBILIZATION
EFFECT OF RESERPINE ON FFA MOBILIZATION CAUSED BY EXTREME STIMULATION OF ANIMALS.
161964 04-03

MODE
ON THE MODE OF ACTION OF APOMORPHINE.
156824 04-03
MODE OF ACTION OF HALLUCINOGENIC MOLECULES.
162336 04-03
EFFECTS OF MODE OF MANAGEMENT ON PLASMA CHLORPROMAZINE IN PSYCHIATRIC PATIENTS.
166721 04-08

MODEL
AN ANIMAL MODEL FOR PSYCHOPHARMACOLOGICAL RESEARCH WITH RELEVANCE TO PSYCHIATRY.
153026 04-06
THE USE OF D-AMPHETAMINE PELLET IMPLANTATION AS A MODEL FOR D-AMPHETAMINE TOLERANCE IN THE MOUSE.
157038 04-03
AMPHETAMINE AS A MODEL FOR HYPERACTIVITY IN THE RAT.
160583 04-04

MODELS
ANIMAL MODELS FOR AN ENZYMIC BLOOD-BRAIN BARRIER MECHANISM FOR THERAPEUTICALLY ADMINISTERED L-DOPA.
159566 04-03
EFFECTS OF (-)DELTA9-TRANS-TETRAHYDROCANNABINOL AND ITS SELECTIVITY IN SEVERAL MODELS OF AGGRESSIVE BEHAVIOR.
161962 04-04
USE OF ANIMAL MODELS FOR COMPARATIVE STUDIES OF LEAD POISONING.
166737 04-05

MODIFICATION
MODIFICATION OF LEVODOPA EFFECT BY SYSTEMIC DECARBOXYLASE INHIRITION.
150216 04-13
MODIFICATION OF THE CNS CYCLIC AMP RESPONSE BY DRUGS.
152664 04-03
EXPLORATORY ACTIVITY: GENETIC ANALYSIS OF ITS MODIFICATION BY SCOPOLAMINE AND AMPHETAMINE.
157099 04-04
PHARMACOLOGICAL STUDIES ON MECHANISM OF ANTIPARKINSONIAN DRUGS (REPORT 2): ELEVATION OF STRIATAL HOMOVANILLIC ACID CONTENT BY OXOTREMORINE AND ITS MODIFICATION BY ANTICHOLINERGICS.
158501 04-03
THE EFFECTS OF CHANGES IN IONIC ENVIRONMENT AND MODIFICATION OF ADRENERGIC FUNCTION ON THE VASCULAR RESPONSES TO SYMPATHOMIMETIC AMINES.
158769 04-03
MODIFICATION OF SEROTONIN METABOLISM IN RAT BRAIN AFTER ACUTE OR CHRONIC ADMINISTRATION OF MORPHINE.
166698 04-03

MODIFICATIONS
PHARMACOLOGICAL MODIFICATIONS OF THE 6-HYDROXYDOPA INDUCED DEGENERATION OF CENTRAL NORADRENALINE NEURONS.
151350 04-03

MODIFY
ALTERATION OF ETHANOL INDUCED CNS DEPRESSION: INEFFECTIVENESS OF DRUGS THAT MODIFY CHOLINERGIC TRANSMISSION. (UNPUBLISHED PAPER).
158058 04-04

MODULATING
A MODULATING EFFECT OF CHLORDIAZEPOXIDE ON DRUG-INDUCED PGO SPIKES IN THE CAT.
158293 04-03

MODULATORS
STUDIES OF ENZYMES AND MODULATORS IN SHOCK INDUCED FIGHTING.
155245 04-04

MOLECULES
MODE OF ACTION OF HALLUCINOGENIC MOLECULES.
162336 04-03

MOLINDONE
TREATMENT OF ACUTE SCHIZOPHRENIA WITH MOLINDONE.
156643 04-08
LONG-TERM USE OF MOLINDONE IN SCHIZOPHRENICS.
166715 04-08

MONKEY
THE EFFECTS OF STIMULANTS AND DEPRESSANTS ON COCAINE SELF-ADMINISTRATION BEHAVIOR IN THE RHESUS MONKEY.
157998 04-04
COMPARABLE BEHAVIOR MAINTAINED UNDER FIXED-RATIO AND SECOND-ORDER SCHEDULES OF FOOD PRESENTATION, COCAINE INJECTION OR D-AMPHETAMINE INJECTION IN THE SQUIRREL MONKEY.
159367 04-04
COMPARING TERATOGENICITY IN MAN AND MONKEY.
163011 04-15

MONKEYS
TREMOR AND INVOLUNTARY MOVEMENTS IN MONKEYS: EFFECT OF L-DOPA AND OF A DOPAMINE RECEPTOR STIMULATING AGENT.
149651 04-03
EFFECTS OF CHLORDIAZEPOXIDE UPON SUCCESSIVE RED-GREEN DISCRIMINATION RESPONSES IN JAPANESE MONKEYS, MACACA-FUSCATA.
150325 04-04
DRUG-INDUCED REINSTATEMENT OF AMPHETAMINE SELF-ADMINISTRATION BEHAVIOUR IN MONKEYS.
154210 04-04
SELF-ADMINISTRATION OF ACETYLSALICYLIC ACID AND COMBINATIONS WITH CODEINE AND CAFFEINE IN RHESUS MONKEYS.
157064 04-04
THE EFFECT OF M-TYROSINE ON TREMOR AND ON ABNORMAL MOVEMENTS IN MONKEYS WITH VENTROMEDIAL TEGMENTAL LESIONS.
158274 04-03
MORPHINE, PROPRANOLOL AND THEIR INTERACTION IN MONKEYS TRAINED TO SELF-ADMINISTER DRUGS. (UNPUBLISHED PAPER).
158321 04-04
EFFECTS OF CS-386 AND CLOXAZOLAM ON CONDITIONED BEHAVIOR OF PAIRED MONKEYS.
158491 04-04
LONG-TERM TOXICITY STUDY OF METHYLMERCURY CHLORIDE IN MONKEYS (SECOND REPORT).
158515 04-05
THE EFFECTS OF N,N DIMETHYLTRYPTAMINE ON OPERANT BEHAVIOR IN SQUIRREL MONKEYS.
162274 04-04
COMPARISON OF BEHAVIORAL EFFECTS OF NICOTINE, D-AMPHETAMINE, CAFFEINE AND DIMETHYLHEPTYL TETRAHYDROCANNABINOL IN SQUIRREL MONKEYS.
163750 04-04
CHLORPROMAZINE TREATMENT OF DISTURBED MONKEYS.
164715 04-04

MONOAMINE
INDICATIONS AND RESULTS OF MONOAMINE TREATMENT IN THE PARKINSONIAN SYNDROME.
150220 04-11
THE EFFECT OF AMANTADINE AND (_)- AMPHETAMINE ON MOTILITY IN RATS AFTER INHIBITION OF MONOAMINE SYNTHESIS AND STORAGE.
150354 04-04
NEW THERAPEUTIC POSSIBILITIES IN DEPRESSIONS: TRYPTOPHAN AND INHIBITORS OF MONOAMINE OXIDASE.
151394 04-10
REM SLEEP AND CENTRAL MONOAMINE OXIDASE INHIBITION.
152122 04-13
SPECIFIC IRREVERSIBLE INHIBITORS OF MONOAMINE OXIDASE.
156874 04-01
THE EFFECTS OF ANALGESICS AND NEUROLEPTICS ON THE RELEASE OF MONOAMINE METABOLITES INTO THE LATERAL CEREBRAL VENTRICLE OF RABBIT.
158482 04-03
MONOAMINE PRECURSORS AND INDOLEAMINE METABOLISM IN DEPRESSION.
158500 04-09
CURRENT STATUS OF MONOAMINE OXIDASE INHIBITORS IN PSYCHIATRY.
159544 04-09
THE MONOAMINE OXIDASE INHIBITOR, PHENELZINE, IN THE TREATMENT OF DEPRESSIVE ANXIETY STATES.
159776 04-09
THE METABOLISM OF INDOLEALKYLAMINES BY TYPE A AND B MONOAMINE OXIDASE OF BRAIN. (UNPUBLISHED PAPER).
160457 04-03
THE EFFECTS OF BENZODIAZEPINES, MEPROBAMATE, AND BARBITURATES ON CENTRAL MONOAMINE NEURONS.
160472 04-03
ACID MONOAMINE METABOLITES IN THE CEREBROSPINAL FLUID OF PARKINSONIAN PATIENTS TREATED WITH LEVODOPA ALONE OR COMBINED WITH DECARBOXYLASE INHIBITOR.
160650 04-13
STRYCHNINE, MORPHINE AND MONOAMINE DEPRESSION.
160768 04-03
POSSIBLE RATIONALE FOR PROCAINE (GEROVITAL-H3) THERAPY IN GERIATRICS: INHIBITION OF MONOAMINE OXIDASE.
160951 04-11
EFFECTS OF INTRACEREBRAL INJECTIONS OF 5,6 DIHYDROXYTRYPTAMINE ON CENTRAL MONOAMINE NEURONS: EVIDENT FOR SELECTIVE DEGENERATION OF CENTRAL 5-HYDROXYTRYPTAMINE NEURONS.
162894 04-03
DEXTROMETHORPHAN MONOAMINE OXIDASE INHIBITOR INTERACTION IN RABBITS.
163801 04-03
SPECIFIC IRREVERSIBLE INHIBITORS OF MONOAMINE OXIDASE.
164855 04-01
INHIBITORY EFFECT OF GEROVITAL-H3 AND PROCAINE ON MONOAMINE OXIDASE IN RAT BRAIN, LIVER, HEART AND PLATELETS.
166386 04-11
THE NATURE OF THE INHIBITION OF MONOAMINE OXIDASE PRODUCED BY GEROVITAL-H3.
166388 04-03

MONOAMINES
ROLE OF MONOAMINES IN THE PSYCHOPATHOLOGY OF MOTORICITY: IMPLICATED NEURAL CIRCUITS IN THE PSYCHOPATHOLOGY OF PARKINSONIAN SYNDROMES.
150219 04-11
URINARY EXCRETION OF MONOAMINES AND METABOLITES IN PATIENTS DEPENDENT ON AND WITHDRAWN FROM BARBITURATES.
150293 04-13
EFFECTS OF ESTROGEN AND PROGESTERONE ON BRAIN MONOAMINES: INTERACTIONS WITH PSYCHOTROPIC DRUGS.
152045 04-03
THE AGGRESSIVE MONOAMINES.
152432 04-04
SOME OBSERVATIONS ON THE CIRCADIAN RHYTHM OF LOCOMOTOR ACTIVITY OF MICE AFTER DEPLETION OF CEREBRAL MONOAMINES.
158002 04-03
ELECTROPHYSIOLOGICAL STUDIES ON ACTION OF PSYCHOTROPIC DRUGS IN RELATION TO BRAIN MONOAMINES.
158505 04-03
SOME AGONISTIC ACTIONS OF THE MORPHINE ANTAGONIST LEVALLORPHAN ON BEHAVIOR AND BRAIN MONOAMINES IN THE RAT.
163757 04-03
EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF DESMETHYLIMIPRAMINE ON THE CONTENT OF NOREPINEPHRINE AND OTHER MONOAMINES IN THE RAT BRAIN.
166027 04-03
EFFECTS OF P-CHLOROPHENYLALANINE AND 5-HYDROXYTRYPTOPHAN ON SLEEP - WAKEFULNESS AND THE CENTRAL METABOLISM OF MONOAMINES AND PROTEINS IN THE CAT.
166692 04-04

MONOHYDROXYLATED
A COMPARISON OF THE PHARMACOLOGICAL ACTIVITY OF DELTA9-TETRAHYDROCANNABINOL AND ITS MONOHYDROXYLATED METABOLITES IN MAN.
163022 04-13

MONOPHOSPHATE
ADENOSINE 3,5 MONOPHOSPHATE IN CEREBROSPINAL FLUID.
158154 04-13
EFFECT OF N6O2-DIBUTYRYL CYCLIC 3,5 ADENOSINE MONOPHOSPHATE ON THE PINOCYTOSIS OF BRAIN CAPILLARIES OF MICE.
162960 04-03

MONOPOLAR
INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04

MONOSYNAPTIC
ANTAGONISM OF DESCENDING EFFECTS OF THE SUBSTANTIA-NIGRA ON LUMBO-SACRAL MONOSYNAPTIC REFLEXES.
160635 04-03

MOOD
THE USE OF LITHIUM CARBONATE IN THE TREATMENT OF MOOD DISORDERS.
150798 04-09
EFFECT OF MAGNESIUM PEMOLINE AND METHYLPHENIDATE ON MEMORY IMPROVEMENT AND MOOD IN NORMAL AGING SUBJECTS.
153054 04-14
STUDY OF THE EFFECT OF PSYCHOTROPIC DRUGS ON TENSION IN MOOD STATES.
153090 04-09
NICOTINE AND SMOKING: EFFECTS UPON SUBJECTIVE CHANGES IN MOOD.
157150 04-14
THE EFFECTS OF ANTIDEPRESSANT DRUGS ON PAIN RELIEF AND MOOD IN THE CHRONICALLY ILL: A DOUBLE-BLIND STUDY.
163331 04-11
EEG, HEART RATE AND MOOD CHANGE (HIGH) AFTER CANNABIS.
163747 04-13
COMPARATIVE PSYCHOPHYSIOLOGICAL AND MOOD EFFECTS OF DIAZEPAM AND DIPOTASSIUM CLORAZEPATE.
163782 04-13

MORPHINE
RELAPSE TO MORPHINE USE IN DOG.
150317 04-04
CONCENTRATION INGESTION RELATIONS OF MORPHINE ADULTERATED FOOD AND MORPHINE SOLUTION.
150321 04-06
QUANTITATIVE DETERMINATION OF MORPHINE IN POPPY CAPSULES BY DIFFERENTIAL SPECTROPHOTOMETRY.
150416 04-01
BEHAVIOURAL AND PHARMACOLOGICAL STUDIES ON MORPHINE INDUCED EXCITATION OF RATS. POSSIBLE RELATION TO BRAIN CATECHOLAMINES.
150667 04-04
EFFECTS OF LITHIUM ON THE ANALGESIA CAUSED BY MORPHINE AND TWO ANTIDEPRESSANTS IN MICE.
151908 04-03
INHIBITION OF RENAL TUBULAR TRANSPORT OF MORPHINE BY DIETHYLAMINOETHANOL IN THE CHICKEN.
152162 04-03
ALPHA-METHYLTYROSINE TO PREVENT SELF-ADMINISTRATION OF MORPHINE AND AMPHETAMINE.
152213 04-04
EFFECTS OF MORPHINE ON CATECHOLAMINE TURNOVER, CYCLIC 3,5 AMP CONCENTRATIONS AND TYROSINE HYDROXYLASE ACTIVITY IN RAT TISSUES. (UNPUBLISHED PAPER).
152549 04-03
CONTROL OF MORPHINE WITHDRAWAL HYPOTHERMIA BY CONDITIONAL STIMULI.
153098 04-03
LONG-TERM EFFECTS OF MORPHINE ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR OF THE RAT.
153103 04-03
AVERSIVE CONDITIONING BY PSYCHOACTIVE DRUGS: EFFECTS OF MORPHINE, ALCOHOL AND CHLORDIAZEPOXIDE.
153107 04-04
INFLUENCE OF 5,6-DIHYDROXYTRYPTAMINE ON MORPHINE TOLERANCE AND PHYSICAL DEPENDENCE.
156822 04-03
THE ROLE OF DOPAMINE AND NOREPINEPHRINE IN THE NALOXONE INDUCED ABSTINENCE OF MORPHINE DEPENDENT MICE.
157116 04-03
EFFECT OF 6-HYDROXYDOPAMINE, 5, 6 DIHYDROXYTRYPTAMINE AND RAPHE LESIONS ON THE ANTINOCICEPTIVE ACTIONS OF MORPHINE IN RATS.
157141 04-03
INFLUENCE OF 6-HYDROXYDOPAMINE ON THE EFFECT OF MORPHINE ON THE TAIL-FLICK LATENCY.
157146 04-04
OPIATE DEPENDENCE PRODUCED BY AD LIBITUM DRINKING OF MORPHINE IN WATER, SALINE, AND SUCROSE VEHICLES.
157147 04-04
MORPHINE DEPENDENCE IN RATS WITH MEDIAL FOREBRAIN BUNDLE LESIONS.
157152 04-03
MORPHINE TOLERANCE AND SUPERSENSITIVITY TO 5-HYDROXYTRYPTAMINE IN THE MYENTERIC PLEXUS OF THE GUINEA-PIG.
157318 04-03
MORPHINE, PROPRANOLOL AND THEIR INTERACTION IN MONKEYS TRAINED TO SELF-ADMINISTER DRUGS. (UNPUBLISHED PAPER).
158321 04-04
RELATIONSHIP BETWEEN MORPHINE AND CANDIDATE NEUROHUMORAL TRANSMITTERS IN THE BRAIN (REPORT 7).
158484 04-03
RESTORATION OF MORPHINE ANALGESIA IN MORPHINE TOLERANT RATS AFTER THE INTRAVENTRICULAR ADMINISTRATION OF 6-HYDROXYDOPAMINE.
158774 04-03
CONTRIBUTING PHARMACOLOGIC FACTORS IN MORPHINE INDUCED FETAL MALFORMATIONS (PH.D. DISSERTATION).
159483 04-03
ATTENUATION OF THE MORPHINE EEG CONTINUUM FOLLOWING A REPEAT DOSE WITHIN 16 DAYS: DELAYED TOLERANCE IN THE RAT.
160633 04-03
LONG-ACTING MORPHINE ANTAGONISTS – POLYMER BLENDS.
160750 04-03
STRYCHNINE, MORPHINE AND MONOAMINE DEPRESSION.
160768 04-03
SEX DIFFERENCES IN FIGHTING AND DEFENSE INDUCED IN RATS BY SHOCK AND D-AMPHETAMINE DURING MORPHINE ABSTINENCE.
161125 04-04
INHIBITION OF MORPHINE INDUCED PITUITARY ADRENAL ACTIVATION BY DEXAMETHASONE IN THE FEMALE RAT (37506).
162049 04-03
MORPHINE INDUCED SACCHARIN AVERSION IN ALPHA-METHYLTYROSINE PRETREATED RATS.
162279 04-03
FACILITATION OF DEVELOPMENT OF TOLERANCE TO MORPHINE BY DESGLYCINAMIDE9-LYSINE VASOPRESSIN (DGVP). (UNPUBLISHED PAPER).
162738 04-03
SOME AGONISTIC ACTIONS OF THE MORPHINE ANTAGONIST LEVALLORPHAN ON BEHAVIOR AND BRAIN MONOAMINES IN THE RAT.
163757 04-03
A COMPARISON OF THE EFFECTS OF D-AMPHETAMINE AND MORPHINE UPON THE LOCOMOTOR ACTIVITY OF MICE TREATED WITH DRUGS WHICH ALTER BRAIN CATECHOLAMINE CONTENT.
163769 04-04
DECRFASED ANTINOCICEPTIVE ACTIVITY OF MORPHINE IN RATS PRETREATED INTRAVENTRICULARLY WITH 5,6 DIHYDROXYTRYPTAMINE, A LONG-LASTING SELECTIVE DEPLETOR OF BRAIN SEROTONIN.
163775 04-03
EFFECTS OF ALPHA-METHYL-P-TYROSINE ON MORPHINE DEPENDENCE.
163776 04-03
EFFECTS OF MORPHINE AND ANALOGUES ON CELL METABOLISM.
164858 04-03
EFFECT OF CHEMICAL SYMPATHECTOMY ON MORPHINE ANTINOCICEPTION AND TOLERANCE DEVELOPMENT IN THE RAT.
166694 04-03
MODIFICATION OF SEROTONIN METABOLISM IN RAT BRAIN AFTER ACUTE OR CHRONIC ADMINISTRATION OF MORPHINE.
166698 04-03
EFFECT OF MORPHINE ON THE RNA AND ATP CONCENTRATION OF BRAIN STRUCTURES OF THE RAT.
167043 04-03

MORPHINIZED
GLYCOGEN CONTENT AND PHOSPHORYLASE ACTIVITY IN LIVER AND SKELETAL MUSCLE OF NORMAL AND CHRONICALLY MORPHINIZED RATS.
156638 04-03

MORPHOLOGICAL
DRUG ALLERGY TO THIOXANTHENE, MANIFESTED BY THE MORPHOLOGICAL PICTURE OF ERYTHEMA EXSUDATIVUM MULTIFORME, AS A RESULT OF TAKING CLOPENTHIXOL.
152089 04-15

MOTHERS
ELIMINATION KINETICS OF AMOBARBITAL IN MOTHERS AND THEIR NEWBORN INFANTS.
151163 04-13

MOTILITY
THE EFFECT OF AMANTADINE AND (_)- AMPHETAMINE ON MOTILITY IN RATS AFTER INHIBITION OF MONOAMINE SYNTHESIS AND STORAGE.
150354 04-04

MOTOR
EFFECTS OF L-TRYPTOPHAN ON MOTOR ACTIVITY IN MICE.
150296 04-04
DOPAMINE AND NORADRENALINE RECEPTOR STIMULATION: REVERSAL OF RESERPINE INDUCED SUPPRESSION OF MOTOR ACTIVITY.
150664 04-03
SPONTANEOUS MOTOR ACTIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL MOTOR ACTIVITY AND SENSORY ACTIVITY.
158486 04-04
AUDITORY SENSITIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL SENSORY ACTIVITY AND SPONTANEOUS MOTOR ACTIVITY.
158487 04-03
FLUPHENAZINE ENANTHATE AND FLUPHENAZINE DECANOATE: A COMPARISON OF THEIR DURATION OF ACTION AND MOTOR SIDE-EFFECTS.
161905 04-09

EFFECTS OF L-DOPA AND L-3-METHOXYTYROSINE ON D-METHAMPHETAMINE INDUCED MOTOR ACTIVITY AND SEIZURES INDUCED BY ELECTROSHOCK (37475).
162046 04-03

EPILEPSY IN INHERITED MENTAL AND MOTOR DISORDERS.
165193 04-13

MOTORICITY

ROLE OF MONOAMINES IN THE PSYCHOPATHOLOGY OF MOTORICITY: IMPLICATED NEURAL CIRCUITS IN THE PSYCHOPATHOLOGY OF PARKINSONIAN SYNDROMES.
150219 04-11

MOUSE

SUPPRESSION AND RECOVERY OF MOUSE KILLING IN RATS FOLLOWING IMMEDIATE LITHIUM CHLORIDE INJECTIONS.
151228 04-04

EFFECT OF SEVERAL BENZODIAZEPINES ON CONCENTRATIONS AND SPECIFIC ACTIVITIES OF CHOLINE AND ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
152546 04-03

MEMORY STORAGE IN THREE INBRED MOUSE STRAINS AFTER INJECTION OF CYCLOHEXIMIDE.
153042 04-04

DRUG INTERACTION -- EFFECT OF CHLORPROMAZINE ON THE DISPOSITION OF 8-14C-MESCALINE IN FETAL AND MATERNAL BRAIN AND LIVER IN PREGNANT MOUSE.
155221 04-03

THE USE OF D-AMPHETAMINE PELLET IMPLANTATION AS A MODEL FOR D-AMPHETAMINE TOLERANCE IN THE MOUSE.
157038 04-03

IN VITRO INHIBITORY EFFECTS OF NARCOTIC ANALGESICS AND OTHER PSYCHOTROPIC DRUGS ON THE ACTIVE UPTAKE OF NOREPINEPHRINE IN MOUSE BRAIN TISSUE.
157063 04-03

STERIC ASPECTS OF ADRENERGIC DRUGS XXII: RETENTION OF (_)- AND (-) 14C-NOREPINEPHRINE BY MOUSE HEART.
157302 04-01

EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF CANNABIS-SATIVA EXTRACT ON THE MOUSE KILLING BEHAVIOR OF RATS.
159568 04-04

STUDIES ON POSSIBLE CORRELATIONS BETWEEN CHOLINESTERASE LEVELS IN MOUSE BRAIN AND BEHAVIOR. (PH.D. DISSERTATION).
159827 04-03

BRAIN LESIONS ON THE MOUSE FETUS CAUSED BY MONO SODIUM GLUTAMATE (SECOND REPORT).
160038 04-05

INCREASE IN MOUSE AND RAT BRAIN ACETYLCHOLINE LEVELS BY DIAZEPAM.
160475 04-03

THE ROLE OF BIOGENIC AMINES IN THE RESERPINE INDUCED ALTERATION OF MINIMAL ELECTROSHOCK SEIZURE THRESHOLDS IN THE MOUSE.
160639 04-03

DIFFERENTIAL EFFECTS ON MOUSE BRAIN CATECHOLAMINE TURNOVER OF CHLORPROMAZINE, TRIFLUOPERAZINE AND CLOSELY-RELATED NOT-TRANQUILLIZING ANALOGUES.
161145 04-13

EFFECT OF VARIOUS SEDATIVE DRUGS ON LEVELS OF CHOLINE AND ACETYLCHOLINE AND ON TURNOVER RATE OF ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
162398 04-03

THE EFFECT OF GEROVITAL-H3 ON THE GROWTH RATE OF AGED MOUSE EMBRYO FIBROBLASTS AND ON THE PATHOGENESIS INDUCED BY A RNA C-TYPE VIRUS.
166387 04-03

MOUTH

MOUTH DRYNESS, A NOTABLE REACTION TO PSYCHOTROPIC THERAPY, AND ITS TREATMENT.
150646 04-15

MOVEMENTS

TREMOR AND INVOLUNTARY MOVEMENTS IN MONKEYS: EFFECT OF L-DOPA AND OF A DOPAMINE RECEPTOR STIMULATING AGENT.
149651 04-03

DOPAMINE AND ABNORMAL MOVEMENTS.
150221 04-11

THE EFFECT OF M-TYROSINE ON TREMOR AND ON ABNORMAL MOVEMENTS IN MONKEYS WITH VENTROMEDIAL TEGMENTAL LESIONS.
158274 04-03

MOVING

ACATHISTIC AND TASIKINETIC (MOVING PELVIS) SYNDROMES AND THE RESTLESS LEGS SYNDROME.
150772 04-15

A DEVICE FOR ANALYZING DRUG-INDUCED RESPONSES IN FREELY MOVING MICE.
165729 04-06

MULTIFORME

DRUG ALLERGY TO THIOXANTHENE, MANIFESTED BY THE MORPHOLOGICAL PICTURE OF ERYTHEMA EXSUDATIVUM MULTIFORME, AS A RESULT OF TAKING CLOPENTHIXOL.
152089 04-15

MULTIMODALITY

MULTIMODALITY APPROACHES TO THE TREATMENT AND PREVENTION OF OPIATE ADDICTION.
155241 04-17

MULTIPLE

THE RELEVANCE OF IMMUNOLOGIC STUDIES ON EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) TO CLINICAL INVESTIGATIONS ON MULTIPLE SCLEROSIS. (UNPUBLISHED PAPER).
152545 04-03

STUDY OF ANTIANXIETY EFFECTS OF DRUGS IN THE RAT, WITH A MULTIPLE PUNISHMENT AND REWARD SCHEDULE.
158282 04-04

MULTIVARIATE

DRUG RESPONSES IN DIFFERENT ANXIETY STATES UNDER BENZODIAZEPINE TREATMENT. SOME MULTIVARIATE ANALYSES FOR THE EVALUATION OF RATING SCALE FOR DEPRESSION SCORES.
158285 04-14

CLINICAL JUDGMENT VS. MULTIVARIATE FORMULAE IN ASSIGNMENT OF PSYCHOTROPIC DRUGS.
161818 04-14

MULTIVITAMIN

BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. II. MULTIVITAMIN SUPPLEMENT.
152868 04-11

MUSCLE

GLYCOGEN CONTENT AND PHOSPHORYLASE ACTIVITY IN LIVER AND SKELETAL MUSCLE OF NORMAL AND CHRONICALLY MORPHINIZED RATS.
156638 04-03

A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

ELECTROMYOGRAPHIC EVALUATION OF DRUG-INDUCED MUSCLE RELAXATION.
158296 04-11

THE EFFECT OF RESERPINE, CHLORPROMAZINE AND NEMBUTAL ON LEVELS OF DIPEPTIDES IN RAT BRAIN AND MUSCLE.
160772 04-03

THE TREATMENT OF MUSCLE CONTRACTION HEADACHES WITH DIAZEPAM.
163681 04-11

EFFECTS OF NEW S-TRIAZOLOBENZODIAZEPINE (D-40TA) AND OTHER CENTRAL MUSCLE RELAXANTS ON SPINAL AND SUPRASPINAL REFLEXES IN CATS.
163798 04-03

MUSCULAR

DIAZEPAM AND BENZOCTAMINE: EFFECTS ON CERTAIN OBJECTIVE PARAMETERS OF MUSCULAR SPASTICITY.
160642 04-13

MUTISM

MUTISM AND HYPERTHERMIA IN A PATIENT TREATED WITH NEUROLEPTICS.
163202 04-15

MYENTERIC

MORPHINE TOLERANCE AND SUPERSENSITIVITY TO 5-HYDROXYTRYPTAMINE IN THE MYENTERIC PLEXUS OF THE GUINEA-PIG.
157318 04-03

MYTH

SEX-CRAZED DOPE FIENDS -- MYTH OR REALITY?
151309 04-04

N-ACETYL-P-AMINOPHENOL

DETERMINATION OF TOTAL SALICYLATES, PHENACETIN AND/OR TOTAL N-ACETYL-P-AMINOPHENOL, AND CAFFEINE IN BIOLOGICAL SAMPLES AND ANALGESIC FORMULATIONS.
150410 04-01

N-ACETYLTRANSFERASE

STIMULATION OF SEROTONIN N-ACETYLTRANSFERASE IN PINEAL ORGAN CULTURE BY DRUGS. (UNPUBLISHED PAPER).
154364 04-03

ROLE OF BETA-ADRENERGIC RECEPTOR IN THE CONTROL OF SEROTONIN N-ACETYLTRANSFERASE IN RAT PINEAL. (UNPUBLISHED PAPER).
154368 04-03

N-ALKYL

THE EFFECT OF N-ALKYL CHAIN LENGTH AND STEREOCHEMISTRY ON THE ABSORPTION, METABOLISM AND URINARY EXCRETION OF N-ALKYLAMPHETAMINES IN MAN.
163800 04-13

N-ALKYLAMPHETAMINES

THE EFFECT OF N-ALKYL CHAIN LENGTH AND STEREOCHEMISTRY ON THE ABSORPTION, METABOLISM AND URINARY EXCRETION OF N-ALKYLAMPHETAMINES IN MAN.
163800 04-13

N-CYCLOPROPYLMETHYLNOROXYMORPHONE
HUMAN METABOLITE OF NALTREXONE (N-CYCLOPROPYLMETHYLNOROXYMORPHONE) WITH A NOVEL C-6 ISOMORPHINE CONFIGURATION. (UNPUBLISHED PAPER).
152201 04-13

N-DEMETHYLASE
EFFECTS OF CHLORPROMAZINE AND PHENOBARBITAL ON RAT LIVER AND BRAIN OXIDATIVE N-OXIDASE AND N-DEMETHYLASE ACTIVITIES.
150399 04-03

N-HYDROXYAMPHETAMINE
THE IDENTIFICATION, PROPERTIES AND ANALYSIS OF N-HYDROXYAMPHETAMINE -- A METABOLITE OF AMPHETAMINE.
156761 04-01

N-OXIDASE
EFFECTS OF CHLORPROMAZINE AND PHENOBARBITAL ON RAT LIVER AND BRAIN OXIDATIVE N-OXIDASE AND N-DEMETHYLASE ACTIVITIES.
150399 04-03

N-OXYGENATED
METABOLISM OF AMPHETAMINES. IDENTIFICATION OF N-OXYGENATED PRODUCTS BY GAS CHROMATOGRAPHY AND MASS SPECTROMETRY.
165998 04-06

NA-
COMPARATIVE EFFECTS OF SUBSTITUTED PHENOTHIAZINES AND THEIR FREE RADICALS ON (NA-,K-)- ACTIVATED ADENOSINE TRIPHOSPHATASE.
156640 04-03

NACL
THE EFFECTS OF HYPOTHALAMIC IMPLANTS OF ALDOSTERONE, ANGIOTENSIN II, CARBACOL, NOREPINEPHRINE, AND NACL ON WATER AND NACL INTAKE IN NORMAL AND ADRENALECTOMIZED RATS.
159391 04-04

NAIVE
CANNABIS AND TEMPORAL DISINTEGRATION IN EXPERIENCED AND NAIVE SUBJECTS.
149649 04-14

NALOXONE
CHARACTERISTICS OF PENTAZOCINE DEPENDENCE IN HOSPITALIZED PATIENTS AFTER NALOXONE ADMINISTRATION.
157037 04-15

THE ROLE OF DOPAMINE AND NOREPINEPHRINE IN THE NALOXONE INDUCED ABSTINENCE OF MORPHINE DEPENDENT MICE.
157116 04-03

AGONISTIC PROPERTIES OF NARCOTIC ANALGESICS AND ANTAGONISTS ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR IN THE RAT AND THEIR REVERSAL BY NALOXONE.
160634 04-03

NALTREXONE
HUMAN METABOLITE OF NALTREXONE (N-CYCLOPROPYLMETHYLNOROXYMORPHONE) WITH A NOVEL C-6 ISOMORPHINE CONFIGURATION. (UNPUBLISHED PAPER).
152201 04-13

NARCOANALGESIC
INFLUENCE OF ANTICHOLINERGIC ANTIPARKINSONIAN AGENTS ON THE EFFECTS OF NARCOANALGESIC DRUGS IN THE RAT.
162057 04-03

NARCOSIS
FACTORS INVOLVED IN ETHANOL NARCOSIS: ANALYSIS IN MICE OF THREE INBRED STRAINS.
159567 04-03

NARCOTIC
IS THE UPTAKE OF NARCOTIC ANALGESICS BY CEREBRAL CORTICAL SLICES MEDIATED IN PART BY ACTIVE TRANSPORT?
151631 04-03

EFFECT OF NARCOTIC AGENTS ON BRAIN METABOLISM.
152196 04-03

NARCOTIC ANALGESICS AND THE REGULATION OF NEURONAL CATECHOLAMINE STORES. (UNPUBLISHED PAPER).
152199 04-03

NARCOTIC ANALGESICS. (UNPUBLISHED PAPER).
152542 04-17

BLOCKADE BY BUFOTENIDINE OF THE SEROTONIN AND NARCOTIC ANALGESICS INDUCED CONTRACTION OF DOG INTESTINE IN VIVO.
156825 04-03

IN VITRO INHIBITORY EFFECTS OF NARCOTIC ANALGESICS AND OTHER PSYCHOTROPIC DRUGS ON THE ACTIVE UPTAKE OF NOREPINEPHRINE IN MOUSE BRAIN TISSUE.
157063 04-03

LOCALIZATION IN BRAIN PARTICULATE FRACTIONS OF NARCOTIC ANALGESIC DRUGS ADMINISTERED INTRACISTERNALLY TO RATS.
157185 04-03

AGONISTIC PROPERTIES OF NARCOTIC ANALGESICS AND ANTAGONISTS ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR IN THE RAT AND THEIR REVERSAL BY NALOXONE.
160634 04-03

NARCOTICS
EFFECTS OF NARCOTICS ON ENDOCRINE FUNCTION.
160749 04-13

NATIONAL
RECENT RESEARCH ON OPIATE ADDICTION -- REVIEW OF A NATIONAL PROGRAM.
155240 04-17

NATURAL
EEG AND BEHAVIORAL EFFECTS OF NATURAL, SYNTHETIC AND BIOSYNTHETIC CANNABINOIDS.
158004 04-04

COMPARATIVE EFFECTIVENESS OF NATURAL SLEEP AND METHOHEXITAL: PROVOCATIVE TESTS IN ELECTROENCEPHALOGRAPHY.
161331 04-11

NATURE
NATURE OF THE EFFECT OF NEUROLEPTICS AND ANTIDEPRESSANTS ON CONDITIONED AND UNCONDITIONED REFLEXES.
160537 04-13

NATURE AND AMPLITUDE OF THE EFFECTS OF ACETOXYCYCLOHEXIMIDE ON THE RETENTION OF AN INSTRUMENTAL TASK IN MICE.
161123 04-04

THE NATURE OF THE INHIBITION OF MONOAMINE OXIDASE PRODUCED BY GEROVITAL-H3.
166388 04-03

NAUSEA
THE EFFECTS OF INDUCED NAUSEA UPON SHOCK ELICITED AGGRESSION.
150264 04-04

HALOPERIDOL IN THE TREATMENT OF NAUSEA AND VOMITING DUE TO CYTOTOXIC DRUG ADMINISTRATION.
164218 04-15

NEGATIVE
THE NIACIN CONTROVERSY: THE POSSIBILITY OF NEGATIVE EFFECTS.
163999 04-08

NEMBUTAL
THE EFFECT OF RESERPINE, CHLORPROMAZINE AND NEMBUTAL ON LEVELS OF DIPEPTIDES IN RAT BRAIN AND MUSCLE.
160772 04-03

NEONATAL
CATECHOLAMINE CONCENTRATIONS IN DISCRETE AREAS OF THE RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
151629 04-03

NEUROCHEMICAL TERATOLOGY: 5-HYDROXYINDOLE CONCENTRATIONS IN DISCRETE AREAS OF RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
156751 04-03

NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS.
160854 04-04

NERVE
DELTA9-TETRAHYDROCANNABINOL: EFFECTS ON MAMMALIAN NONMYELINATED NERVE FIBERS.
150383 04-03

EVIDENCE FOR DEGENERATION OF SYMPATHETIC NERVE TERMINALS CAUSED BY THE ORTHO-QUINONES AND PARA-QUINONES OF 6-HYDROXYDOPAMINE.
157178 04-03

FURTHER STUDIES ON THE INCREASED SYNTHESIS OF NOREPINEPHRINE DURING NERVE STIMULATION OF GUINEA-PIG VAS-DEFERENS PREPARATION: EFFECT OF TYROSINE AND 6,7 DIMETHYLTETRAHYDROPTERIN.
159368 04-03

NERVES
6-AMINODOPAMINE AND 6-HYDROXYDOPAMINE: SIMILAR DEGENERATIVE EFFECTS ON PERIPHERAL ADRENERGIC NERVES. (UNPUBLISHED PAPER).
156107 04-03

AXONAL TRANSPORT OF DOPAMINE-BETA-HYDROXYLASE BY HUMAN SURAL NERVES IN VITRO.
162880 04-13

UPTAKE AND ACCUMULATION OF 3H-6,7-DIHYDROXYTETRAHYDROISOQUINOLINE BY PERIPHERAL SYMPATHETIC NERVES IN VIVO.
163764 04-03

NERVOUS
OPIATE RECEPTOR: DEMONSTRATION IN NERVOUS TISSUE.
150381 04-03

CENTRAL NERVOUS ACTIONS AND SCREENING METHODS OF ANTIDEPRESSANTS.
150397 04-03

SECURININE: A CENTRAL NERVOUS SYSTEM STIMULANT IS USED IN THE TREATMENT OF AMYTROPHIC LATERAL SCLEROSIS.
150425 04-11

SPECIFIC CHEMOTHERAPY OF THE MOST FREQUENT SUDDEN NERVOUS DISEASES.
151004 04-11

USE OF D-AMPHETAMINE AND RELATED CENTRAL NERVOUS SYSTEM STIMULANTS IN CHILDREN.
152066 04-11

THE ACTION OF ANTIDEPRESSANTS AND CONVULSIVE TREATMENT UPON THE HIGHER NERVOUS ACTIVITY IN DEPRESSIVE STATES.
152152 04-09
THE RE-EVALUATION OF A CENTRAL NERVOUS SYSTEM STIMULANT: PIPRADROL HYDROCHLORIDE.
152211 04-09
A COMPARATIVE STUDY OF THE ACTION OF ACTINOMYCIN D AND ACTINOMYCINIC ACID ON THE CENTRAL NERVOUS SYSTEM WHEN INJECTED INTO THE CEREBROSPINAL FLUID OF HIGHER ANIMALS.
152436 04-05
PATTERN OF SYMPATHETIC NERVOUS SYSTEM (SNS) DISCHARGE AND THE BLOOD PRESSURE RESPONSE TO FOOTSHOCK IN THE RAT.
153202 04-03
INFLUENCE OF TIZERTSINE AND TRIFLUOPERAZINE ON MOBILITY OF MAIN NERVOUS PROCESSES IN PATIENTS WITH PRESENILE PSYCHOSIS.
156588 04-11
TRIAZOLOBENZODIAZEPINES, A NEW CLASS OF CENTRAL NERVOUS SYSTEM DEPRESSANT COMPOUNDS.
158279 04-03
CENTRAL NERVOUS ACTION OF 6-HYDROXYDOPAMINE.
158497 04-03
DOPAMINE SENSITIVE ADENYLATE CYCLASE: THE DOPAMINE RECEPTOR IN THE MAMMALIAN NERVOUS SYSTEM. (PH.D. DISSERTATION).
159484 04-01
INVOLVEMENT OF BIOGENIC AMINES IN MEMORY FORMATION: THE CENTRAL NERVOUS SYSTEM INDOLE AMINE INVOLVEMENT.
162272 04-03
STUDIES ON THE EFFECT OF CYCLAZOCINE, A BENZOMORPHAN DERIVATIVE, ON THE SYMPATHETIC NERVOUS SYSTEM. (PH.D. DISSERTATION).
163534 04-03
NOREPINEPHRINE (NE) TURNOVER IN THE CENTRAL NERVOUS SYSTEM (CNS) -- ESTIMATED IN THE RAT FROM URINARY 3-METHOXY-4-HYDROXYPHENYLGLYCOL (MHPG) EXCRETION. (UNPUBLISHED PAPER
165941 04-03
POSSIBLE SITE OF ACTION OF GEROVITAL-H3 IN THE CENTRAL NERVOUS SYSTEM.
166389 04-03
A COMPARISON OF THE EFFECTS OF SOTALOL AND OF THE ISOMERS OF PRACTOLOL ON ADRENERGIC NERVOUS ACTIVITY.
166789 04-03
DAMAGE TO THE CENTRAL NERVOUS SYSTEM IN THE COURSE OF NEUROLEPTIC TREATMENT.
167087 04-15

NEURAL
ROLE OF MONOAMINES IN THE PSYCHOPATHOLOGY OF MOTORICITY: IMPLICATED NEURAL CIRCUITS IN THE PSYCHOPATHOLOGY OF PARKINSONIAN SYNDROMES.
150219 04-11

NEURALGIA
AN ANALYTICAL SURVEY OF THE MANAGEMENT OF TRIGEMINAL NEURALGIA.
156250 04-11

NEUROAMINE
DOPAMINE DERIVED TETRAHYDROISOQUINOLINE ALKALOIDS -- INHIBITORS OF NEUROAMINE METABOLISM.
160546 04-03

NEUROCHEMICAL
NEUROCHEMICAL AND BEHAVIORAL BASES OF ETHOLOGICAL AGGRESSION.
155242 04-03
NEUROCHEMICAL TERATOLOGY: 5-HYDROXYINDOLE CONCENTRATIONS IN DISCRETE AREAS OF RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
156751 04-03

NEUROCHEMISTRY
DEVELOPMENTAL CHANGES IN NEUROCHEMISTRY DURING THE MATURATION OF SLEEP BEHAVIOR.
151707 04-03

NEUROGENIC
CENTRAL NEUROGENIC CONTROL OF CEREBRAL CIRCULATION.
162136 04-03

NEUROHUMORAL
ANTAGONISTIC ACTIVITY OF SOME PHENOTHIAZINE DERIVATIVES AGAINST NEUROHUMORAL TRANSMITTERS.
157139 04-03
RELATIONSHIP BETWEEN MORPHINE AND CANDIDATE NEUROHUMORAL TRANSMITTERS IN THE BRAIN (REPORT 7).
158484 04-03
EFFECTS OF NEUROHUMORAL AND ADRENERGIC AGENTS ON CYCLIC AMP LEVELS IN VARIOUS AREAS OF THE RAT BRAIN IN VITRO. (UNPUBLISHED PAPER).
165682 04-03

NEUROLEPTIC
AHR-2277: A NEW MAJOR NEUROLEPTIC WITH MINIMAL NEUROLOGICAL EFFECTS.
150643 04-08
NEUROLEPTIC TREATMENT OF PRISONERS WITH MENTAL ABNORMALITIES.
150749 04-11
ACUTE RESPONSES OF SCHIZOPHRENIC CHILDREN TO A SEDATIVE AND STIMULATING NEUROLEPTIC: A PHARMACOLOGIC YARDSTICK.
152208 04-08
HOSPITAL TESTING OF AN ORAL LONG-TERM NEUROLEPTIC: PENFLURIDOL.
156892 04-08
COMPARISON OF THE BEHAVIORAL DEPRESSANT EFFECTS OF BIOGENIC AMINE DEPLETING AND NEUROLEPTIC AGENTS FOLLOWING VARIOUS 6-HYDROXYDOPAMINE TREATMENTS.
157140 04-04
DOPAMINE ANTAGONISM AND ANTISCHIZOPHRENIC POTENCY OF NEUROLEPTIC DRUGS.
159450 04-08
NEUROLEPTIC TREATMENT OF SCHIZOPHRENIA.
166975 04-08
TREATMENT OF EXTRAPYRAMIDAL SIDE-EFFECTS IN NEUROLEPTIC THERAPY.
166978 04-15
DAMAGE TO THE CENTRAL NERVOUS SYSTEM IN THE COURSE OF NEUROLEPTIC TREATMENT.
167087 04-15

NEUROLEPTICS
THE PROBLEM OF CLINICAL ACTIVITY OF LONG-ACTING NEUROLEPTICS.
153278 04-10
THE EFFECTS OF ANALGESICS AND NEUROLEPTICS ON THE RELEASE OF MONOAMINE METABOLITES INTO THE LATERAL CEREBRAL VENTRICLE OF RABBIT.
158482 04-03
NATURE OF THE EFFECT OF NEUROLEPTICS AND ANTIDEPRESSANTS ON CONDITIONED AND UNCONDITIONED REFLEXES.
160537 04-13
MUTISM AND HYPERTHERMIA IN A PATIENT TREATED WITH NEUROLEPTICS.
163202 04-15
PHARMACOLOGICAL ASPECTS OF THE WORKING MECHANISM OF NEUROLEPTICS.
166976 04-13
PHARMACOKINETIC INTERACTION BETWEEN NEUROLEPTICS AND ANTIDEPRESSANTS: EFFECT ON ORGAN DISTRIBUTION AND METABOLIC PATTERN.
166984 04-03
FENFLURAMINE (PONDERAL) IN TREATMENT OF ADIPOSITY CAUSED BY NEUROLEPTICS.
166986 04-09

NEUROLOGIC
DRUG THERAPY: NEUROLOGIC SYNDROMES ASSOCIATED WITH ANTIPSYCHOTIC DRUG USE.
158264 04-15
BEHAVIORAL TOXICOLOGIC ASSESSMENT OF THE NEUROLOGIC EFFECT OF LEAD IN SHEEP.
166736 04-05

NEUROLOGICAL
AHR-2277: A NEW MAJOR NEUROLEPTIC WITH MINIMAL NEUROLOGICAL EFFECTS.
150643 04-08
TARDIVE DYSKINESIA: A PERSISTENT NEUROLOGICAL SYNDROME ASSOCIATED WITH ANTIPSYCHOTIC DRUG USE.
159348 04-15

NEUROMUSCULAR
NEUROMUSCULAR BLOCKING DRUGS AND THE HEART RATE RESPONSE TO DIRECT PREGANGLIONIC STIMULATION OF THE SYMPATHETICS AND PARASYMPATHETICS IN THE CAT.
153171 04-03
CLASSICAL AVERSIVE CONDITIONING IN CATS UNDER VARIOUS NEUROMUSCULAR BLOCKING DRUGS.
153217 04-04

NEURON
ACCUMULATION, STORAGE AND RELEASE OF ADRENERGIC NEURON BLOCKING AGENTS AND RELATED DRUGS BY HUMAN PLATELETS.
150316 04-03
FURTHER STUDIES ON THE ADRENERGIC NEURON BLOCKING ACTIVITY OF SOME BETA-ADRENOCEPTOR ANTAGONISTS AND GUANETHIDINE.
161141 04-03

NEURONAL
NARCOTIC ANALGESICS AND THE REGULATION OF NEURONAL CATECHOLAMINE STORES. (UNPUBLISHED PAPER).
152199 04-03
NORADRENERGIC AND CHOLINERGIC ACTION ON NEURONAL ACTIVITY DURING SELF-STIMULATION BEHAVIOR IN THE RAT.
156810 04-04
THE REFLECTION OF EJECTING AND RETAINING CURRENTS IN THE TIME COURSE OF NEURONAL RESPONSES TO MICROELECTROPHORETICALLY APPLIED DRUGS.
158768 04-03
NEURONAL AND SOCIAL FACTORS IN THE ABUSE OF MARIHUANA.
160747 04-04

NORADRENALINE EXCITATIONS: NEURONAL, NOT VASCULAR.
162440 04-03

NEURONES
COMPARISON OF EFFECTS OF NORADRENALINE AND HISTAMINE WITH CYCLIC AMP ON BRAIN STEM NEURONES.
162893 04-03
COMPARISON OF EFFECTS OF L-DOPA, AMPHETAMINE AND APOMORPHINE ON FIRING RATE OF RAT DOPAMINERGIC NEURONES.
162974 04-03
ANALOGUES OF GAMMA-AMINOBUTYRATE ON RAT HIPPOCAMPAL NEURONES.
162975 04-03

NEURONS
PHARMACOLOGICAL MODIFICATIONS OF THE 6-HYDROXYDOPA INDUCED DEGENERATION OF CENTRAL NORADRENALINE NEURONS.
151350 04-03
MICROIONTOPHORETIC STUDIES OF CONFORMATIONALLY RESTRICTED ANALOGUES OF GAMMA-AMINOBUTYRATE OF RAT HIPPOCAMPAL NEURONS. (UNPUBLISHED PAPER).
151435 04-03
DOPAMINE RECEPTOR BLOCKADE -- A CENTRAL ACTION OF CHLORPROMAZINE ON STRIATAL NEURONS.
152439 04-13
EFFECT OF ERGOT DRUGS ON CENTRAL CATECHOLAMINE NEURONS: EVIDENCE FOR A STIMULATION OF CENTRAL DOPAMINE NEURONS.
155903 04-03
THE EXCITATION OF NEURONS BY NORADRENALINE.
156758 04-03
DOPAMINERGIC NEURONS: EFFECT OF ANTIPSYCHOTIC DRUGS AND AMPHETAMINE ON SINGLE CELL ACTIVITY.
157111 04-03
ANTIANXIETY ACTION OF BENZODIAZEPINES: DECREASE IN ACTIVITY OF SEROTONIN NEURONS IN THE PUNISHMENT SYSTEM.
158280 04-04
EFFECTS OF ETHANOL ON CEREBRAL CORTICAL NEURONS: INTERACTIONS WITH SOME PUTATIVE TRANSMITTERS.
158773 04-03
THE EFFECTS OF BENZODIAZEPINES, MEPROBAMATE, AND BARBITURATES ON CENTRAL MONOAMINE NEURONS.
160472 04-03
EFFECTS OF INTRACEREBRAL INJECTIONS OF 5,6 DIHYDROXYTRYPTAMINE ON CENTRAL MONOAMINE NEURONS: EVIDENT FOR SELECTIVE DEGENERATION OF CENTRAL 5-HYDROXYTRYPTAMINE NEURONS.
162894 04-03

NEUROPHARMACOLOGICAL
ACETYLSECOHEMICHOLINIUM-3, A NEW CHOLINE ACETYLTRANSFERASE INHIBITOR USEFUL IN NEUROPHARMACOLOGICAL STUDIES.
156812 04-01

NEUROPSYCHOPHARMACOLOGICAL
A NEUROPSYCHOPHARMACOLOGICAL STUDY OF PHENMETRAZINE IN SEVERAL ANIMAL SPECIES.
156811 04-02

NEUROPSYCHOPHARMACOLOGY
SINGLE PATIENT ORIENTED NEUROPSYCHOPHARMACOLOGY.
164269 04-14

NEUROSIS
BEHAVIOUR THERAPY VERSUS DRUG THERAPY IN THE TREATMENT OF PHOBIC NEUROSIS.
153606 04-10
THE USE OF HYDROXYZINE (VISTARIL) IN THE TREATMENT OF ANXIETY NEUROSIS.
155792 04-10
TREATMENT OF CHRONIC NEUROSIS BY THE USE OF PIMOZIDE.
157029 04-11
PSYCHOPHARMACOLOGY OF THE DEPRESSIVE NEUROSIS.
163994 04-09

NEUROTIC
A STUDY OF THE TREATMENT OF REACTIVE AND NEUROTIC DEPRESSIONS BY A COMBINATION OF AMITRIPTYLINE AND PERPHENAZINE.
150255 04-09
PRELIMINARY REPORT TREATMENT WITH RO-5-3350 ON AMBULATORY NEUROTIC PATIENTS.
151947 04-07
TREATMENT OF AMBULATORY NEUROTIC PATIENTS WITH WY-4036, JAKARTA, INDONESIA.
152342 04-10
PSYCHEDELIC (LSD) THERAPY OF NEUROTIC DISORDERS: SHORT-TERM EFFECTS.
162155 04-12

NEUROTOXICITY
THE NEUROTOXICITY OF THE HALOGENATED HYDROXYQUINOLINES: A COMMENTARY.
156069 04-15

NEUROTRANSMITTER
CENTRAL NEUROTRANSMITTER EFFECTS OF ETHANOL.
165634 04-03

NEW
CEREBRAL HYDROXYLASES: STIMULATION BY A NEW FACTOR.
149650 04-03
THE EFFECT OF A STIMULANT DRUG (METHAMPHETAMINE) ON COGNITIVE IMPULSIVITY, PLANNING, NEW LEARNING, AND SOCIAL BEHAVIOR IN HYPERACTIVE CHILDREN. (PH.D. DISSERTATION).
149717 04-14
BEHAVIORAL PROFILE OF A POTENT NEW PSYCHOTOXIC COMPOUND.
150294 04-07
NEW COMPOUNDS: SYNTHESIS OF ALKYL ESTERS OF D,L-DOPA.
150417 04-01
AHR-2277: A NEW MAJOR NEUROLEPTIC WITH MINIMAL NEUROLOGICAL EFFECTS.
150643 04-08
1766-CERM: A NEW ANTIDEPRESSANT WITH RAPID ACTION.
150644 04-09
REFLECTIONS ON A 3-YEAR TREATMENT OF 120 PATIENTS WITH A NEW ANTIDEPRESSANT.
150645 04-09
5-HYDROXYTRYPTAMINE SUPERSENSITIVITY AS A NEW THEORY OF HEADACHE AND CENTRAL PAIN: A CLINICAL PHARMACOLOGICAL APPROACH WITH P-CHLOROPHENYLALANINE.
150670 04-15
PIPERACETAZINE IN CHRONIC MENTAL PATIENTS: CLINICAL OBSERVATIONS AND NEW URINE COLOR TEST.
150831 04-07
CLINICAL EXPERIMENTS WITH A NEW PSYCHOTROPIC: SULPIRIDE.
151263 04-07
PHARMACOLOGICAL TREATMENT OF CEREBRAL ARTERIOSCLEROSIS WITH A NEW DRUG COMBINATION.
151268 04-11
NEW DRUGS IN THE TREATMENT OF PARKINSONISM.
151377 04-11
NEW THERAPEUTIC POSSIBILITIES IN DEPRESSIONS: TRYPTOPHAN AND INHIBITORS OF MONOAMINE OXIDASE.
151394 04-10
ON SOME NEW POSSIBILITIES FOR THE THERAPEUTIC USE OF TEGRETOL IN THE PSYCHIATRIC CLINIC.
151809 04-11
ELECTROGRAPHIC STUDIES OF A NEW VOLATILE ANESTHETIC AGENT: ENFLURANE (ETHRANE).
152037 04-03
NEW DRUG DEVELOPMENT IN THE UNITED-KINGDOM.
155270 04-17
NEW DRUG DEVELOPMENTS IN GERMAN-SPEAKING COUNTRIES.
155271 04-17
NEW DRUG DEVELOPMENTS IN FRANCE AND FRENCH-SPEAKING COUNTRIES.
155272 04-17
NEW DRUG DEVELOPMENTS IN THE LATIN-AMERICAS (ARGENTINA, COSTA-RICA, MEXICO, AND PANAMA).
155273 04-17
PROBLEMS AND EXPERIENCES WITH TRIALS OUTSIDE THE UNITED-STATES: THE TIME LAG IN NEW DRUG AVAILABILITY.
155274 04-17
FOUR NEW DRUG DEVELOPMENTS FROM DENMARK, RUSSIA, AND WEST GERMANY.
155275 04-14
PHYSICOCHEMICAL STUDIES ON A NEW POTENT CNS DEPRESSANT, 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA).
155553 04-01
OBESITY DEPRESSION: CLINICAL EVALUATION WITH A NEW ANOREXIGENIC AGENT.
155886 04-10
A DOUBLE-BLIND CLINICAL TRIAL OF THE NEW HYPNOTIC MANDRAX.
156359 04-07
ACETYLSECOHEMICHOLINIUM-3, A NEW CHOLINE ACETYLTRANSFERASE INHIBITOR USEFUL IN NEUROPHARMACOLOGICAL STUDIES.
156812 04-01
SEARCH FOR NEW HALLUCINOGENIC CACTI.
156875 04-01
CLORAZEPATE DIPOTASSIUM: A NEW BENZODIAZEPINE ANTIANXIETY AGENT.
156940 04-10
TRIAZOLOBENZODIAZEPINES, A NEW CLASS OF CENTRAL NERVOUS SYSTEM DEPRESSANT COMPOUNDS.
158279 04-03
NEW APPARATUS FOR LEARNING EXPERIMENT AND ITS APPLICATION - THE EFFECT OF CHLORPROMAZINE, RESERPINE AND AMPHETAMINE.
158493 04-04
CONTROLLED EVALUATION OF FLURAZEPAM HYDROCHLORIDE, A NEW NONBARBITURATE HYPNOTIC.
159473 04-07
PHYTOCHEMICAL INVESTIGATION OF VIROLA-PERUVIANA, A NEW HALLUCINOGENIC PLANT.
163189 04-12

EFFECTS OF NEW S-TRIAZOLOBENZODIAZEPINE (D-40TA) AND OTHER CENTRAL MUSCLE RELAXANTS ON SPINAL AND SUPRASPINAL REFLEXES IN CATS.
163798 04-03

ANXIOLYTIC EFFECTS OF A NEW TRIAZOLOBENZODIAZEPINE. U-31889.
164219 04-10

CLINICAL EXPERIENCES WITH THE NEW ANTIDEPRESSANT MAPROTILIN 34276-BA.
164681 04-09

THE PHENOMENOLOGY OF MANIA: A NEW LOOK AT SOME OLD PATIENTS.
164719 04-09

SYMPOSIUM: NEW THERAPEUTIC APPROACH TO SCHIZOPHRENIA.
165728 04-08

NEW INVESTIGATIONS INTO BIOGENIC AMINES (CEREBRAL OR CELLULAR LOCALIZATION, INFLUENCE OF VARIOUS CHEMICAL FACTORS).
167085 04-03

TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167108 04-17

DISCUSSION OF A SURVEY OF ACADEMIC AND INDUSTRIAL SCIENTISTS ON TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167109 04-17

TIGHT NEW RULES FOR METHAQUALONE.
167120 04-17

NEWBORN
ELIMINATION KINETICS OF AMOBARBITAL IN MOTHERS AND THEIR NEWBORN INFANTS.
151163 04-13

DRUG DISPOSITION IN THE FETUS AND NEWBORN INFANT.
159352 04-11

DIAZEPAM METABOLISM AND ANTICONVULSANT ACTIVITY IN NEWBORN ANIMALS.
166691 04-03

NIACIN
THE BACKGROUND TO THE NIACIN TREATMENT.
150951 04-08

THE NIACIN CONTROVERSY: THE POSSIBILITY OF NEGATIVE EFFECTS.
163999 04-08

NICOTINATE
EFFECT OF XANTHINOL NICOTINATE ON METABOLISM OF BRAIN CYCLIC AMP AND METABOLISM IN ELECTRICALLY STIMULATED CEREBRAL TISSUE.
158511 04-03

NICOTINE
NICOTINE AND SMOKING: EFFECTS UPON SUBJECTIVE CHANGES IN MOOD.
157150 04-14

ACUTE AND CHRONIC TOLERANCE TO NICOTINE MEASURED BY ACTIVITY IN RATS.
157151 04-03

FURTHER EVIDENCE IN SUPPORT OF A COMMON ADRENERGIC MECHANISM FOR THE FACILITATORY ACTION ON LEARNING OF AMPHETAMINE AND NICOTINE IN RATS.
158772 04-04

COMPARISON OF BEHAVIORAL EFFECTS OF NICOTINE, D-AMPHETAMINE, CAFFEINE AND DIMETHYLHEPTYL TETRAHYDROCANNABINOL IN SQUIRREL MONKEYS.
163750 04-04

TRANSFER OF STATE-DEPENDENT CONTROL OF DISCRIMINATIVE BEHAVIOUR BETWEEN SUBCUTANEOUSLY AND INTRAVENTRICULARLY ADMINISTERED NICOTINE AND SALINE.
163771 04-04

NIMETAZEPAM
STUDIES ON IN VIVO METABOLISM OF NIMETAZEPAM (S-1530) IN MICE & RATS.
158478 04-03

NITRAZEPAM
PHARMACOKINETICS AND METABOLISM OF THE HYPNOTIC NITRAZEPAM.
160467 04-13

THE INTERACTION OF CHLORDIAZEPOXIDE, DIAZEPAM, AND NITRAZEPAM WITH CATECHOLAMINES AND HISTAMINE IN REGIONS OF THE RAT BRAIN.
160471 04-03

NITROFURANTOIN
CEREBELLAR TOXIC EFFECTS FROM NITROFURANTOIN.
158153 04-15

NITRONE
N-ETHYL-ALPHA-METHYL-ALPHA (M-TRIFLUOROMETHYLBENZYL)NITRONE -- THE MAJOR IN VITRO METABOLIC PRODUCT OF FENFLURAMINE IN GUINEA-PIG LIVER MICROSOMAL FRACTIONS.
151634 04-03

NMR
PARAMAGNETIC ION INDUCED SHIFTS IN THE NMR SPECTRA OF RESERPINE AND METHYL 3,4,5 TRIMETHOXYBENZOATE.
156867 04-06

NOCTURNAL
HUMAN CHORIONIC GONADOTROPHIN (PREGNYL) IN THE TREATMENT OF NOCTURNAL ENURESIS.
158013 04-13

NONBARBITURATE
CONTROLLED EVALUATION OF FLURAZEPAM HYDROCHLORIDE, A NEW NONBARBITURATE HYPNOTIC.
159473 04-07

NONDRUG
SKIN POTENTIAL ORIENTING RESPONSES IN DRUG TREATED AND NONDRUG TREATED DEPRESSED INPATIENTS.
159395 04-09

NONHABITUATED
DIFFERENTIAL EFFECTS OF DELTA9-THC ON LOCOMOTOR BEHAVIOR IN ACTIVITY WHEEL HABITUATED AND NONHABITUATED RATS.
157182 04-04

NONINVOLVEMENT
EVIDENCE FOR NONINVOLVEMENT OF CENTRAL CATECHOLAMINES IN COPPER ACETATE INDUCED OVULATION.
163797 04-03

NONIONIC
AN INTRAVENOUS FORMULATIONS OF DELTA9-TETRAHYDROCANNABINOL USING A NONIONIC SURFACTANT.
156764 04-05

NONMEDICAL
NONMEDICAL USE OF METHAQUALONE.
156153 04-15

NONMYELINATED
DELTA9-TETRAHYDROCANNABINOL: EFFECTS ON MAMMALIAN NONMYELINATED NERVE FIBERS.
150383 04-03

NONPARANOID
PHENOTHIAZINE EFFECTS IN GOOD PREMORBID SCHIZOPHRENICS DIVIDED INTO PARANOID NONPARANOID STATUS.
162169 04-08

NONPHARMACOLOGICAL
NONPHARMACOLOGICAL EFFECTS OF DRUGS AND THE PARANOID STATE.
161159 04-17

NONPSYCHIATRIC
PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09

NONPSYCHOACTIVE
MACROMERINE, NORMACROMERINE AND BISNORMACROMERINE: NONPSYCHOACTIVE METHYLATED DERIVATIVES OF NOREPINEPHRINE.
150298 04-04

NONSTEROIDAL
DISPLACEMENT OF THIOPENTAL FROM PLASMA PROTEINS BY NONSTEROIDAL ANTIINFLAMMATORY AGENTS.
163635 04-05

NONSTRESSED
DRUGS IN STRESSED AND NONSTRESSED ANIMALS.
159397 04-06

NOOTROPIC
THE NOOTROPIC APPROACH TO THE PHARMACOLOGY OF THE INTEGRATIVE ACTIVITY OF THE BRAIN.
159396 04-07

NOR-NOXIPTILINE
DOUBLE-BLIND TEST OF THREE ANTIDEPRESSANTS. SECOND COMMUNICATION: CLINICAL COMPARISON OF NOXIPTILINE, NOR-NOXIPTILINE AND AMITRIPTYLINE WITH THE AMP SYSTEM.
156849 04-09

NORADRENALINE
DOPAMINE AND NORADRENALINE RECEPTOR STIMULATION: REVERSAL OF RESERPINE INDUCED SUPPRESSION OF MOTOR ACTIVITY.
150664 04-03

PHARMACOLOGICAL MODIFICATIONS OF THE 6-HYDROXYDOPA INDUCED DEGENERATION OF CENTRAL NORADRENALINE NEURONS.
151350 04-03

THE EXCITATION OF NEURONS BY NORADRENALINE.
156758 04-03

PRIMARY POLYURIA ACCOMPANIES HUNGER ELICITED BY INTRAHYPOTHALAMIC INJECTION OF NORADRENALINE.
156815 04-03

UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE.
158771 04-03

VASOCONSTRICTION BY NORADRENALINE IN THE BRAIN.
162437 04-03

NORADRENALINE ARTEFACTS.
162438 04-03

NORADRENALINE ARTEFACTS: A REPLY.
162439 04-03

NORADRENALINE EXCITATIONS: NEURONAL, NOT VASCULAR.
162440 04-03

COMPARISON OF EFFECTS OF NORADRENALINE AND HISTAMINE WITH CYCLIC AMP ON BRAIN STEM NEURONES.
162893 04-03

EFFECT OF TWO ACTH ANALOGS ON NORADRENALINE METABOLISM IN RAT BRAIN.
162895 04-03

NORADRENERGIC

NORADRENERGIC AND CHOLINERGIC ACTION ON NEURONAL ACTIVITY DURING SELF-STIMULATION BEHAVIOR IN THE RAT.
156810 04-04

EFFECTS OF AMPHETAMINE AND ITS HYDROXYLATED METABOLITES ON CENTRAL NORADRENERGIC MECHANISMS.
157118 04-03

NOREPINEPHRINE

MACROMERINE, NORMACROMERINE AND BISNORMACROMERINE: NONPSYCHOACTIVE METHYLATED DERIVATIVES OF NOREPINEPHRINE.
150298 04-04

THE EXCRETION OF NOREPINEPHRINE AND DOPAMINE ALCOHOLIC METABOLITES AFTER 6-HYDROXYDOPAMINE. (UNPUBLISHED PAPER).
151643 04-03

BINDING SITES FOR NOREPINEPHRINE IN THE BRAIN.
156877 04-03

IN VITRO INHIBITORY EFFECTS OF NARCOTIC ANALGESICS AND OTHER PSYCHOTROPIC DRUGS ON THE ACTIVE UPTAKE OF NOREPINEPHRINE IN MOUSE BRAIN TISSUE.
157063 04-03

ANTAGONISM BY PROTRIPTYLINE AND DESIPRAMINE OF THE RESPONSE OF THE VAS-DEFERENS OF THE RAT TO NOREPINEPHRINE, ACETYLCHOLINE AND POTASSIUM.
157110 04-03

THE ROLE OF DOPAMINE AND NOREPINEPHRINE IN THE NALOXONE INDUCED ABSTINENCE OF MORPHINE DEPENDENT MICE.
157116 04-03

FURTHER STUDIES ON THE INCREASED SYNTHESIS OF NOREPINEPHRINE DURING NERVE STIMULATION OF GUINEA-PIG VAS-DEFERENS PREPARATION: EFFECT OF TYROSINE AND 6,7 DIMETHYLTETRAHYDROPTERIN.
159368 04-03

THE EFFECTS OF HYPOTHALAMIC IMPLANTS OF ALDOSTERONE, ANGIOTENSIN II, CARBACOL, NOREPINEPHRINE, AND NACL ON WATER AND NACL INTAKE IN NORMAL AND ADRENALECTOMIZED RATS.
159391 04-04

DIFFERENTIAL EFFECTS OF RESERPINE AND ALPHA-METHYL-P-TYROSINE ON NOREPINEPHRINE AND DOPAMINE INDUCED BEHAVIORAL ACTIVITY.
162277 04-04

EFFECT OF CHEMICAL SYMPATHECTOMY ON PRESSOR RESPONSES TO NOREPINEPHRINE, ANGIOTENSIN AND TYRAMINE.
163021 04-03

DISSOCIATION OF SOME BEHAVIORAL EFFECTS OF INTRAVENTRICULAR DOPAMINE AND NOREPINEPHRINE. (PH.D. DISSERTATION).
163450 04-04

INFLUENCE OF AMPHETAMINES, PROTRIPTYLINE AND PARGYLINE ON THE TIME COURSE OF THE NOREPINEPHRINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RAT BRAIN.
165790 04-03

NOREPINEPHRINE (NE) TURNOVER IN THE CENTRAL NERVOUS SYSTEM (CNS) -- ESTIMATED IN THE RAT FROM URINARY 3-METHOXY-4-HYDROXYPHENYLGLYCOL (MHPG) EXCRETION. (UNPUBLISHED PAPER
165941 04-03

EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF DESMETHYLIMIPRAMINE ON THE CONTENT OF NOREPINEPHRINE AND OTHER MONOAMINES IN THE RAT BRAIN.
166027 04-03

EFFECT OF DIPHENYLHYDANTOIN ON THE UPTAKE AND CATABOLISM OF L-(3H)NOREPINEPHRINE IN VITRO IN RAT CEREBRAL CORTEX TISSUE.
166696 04-03

CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE: STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER).
166960 04-09

NORFENFLURAMINE

DIFFERENTIAL EFFECTS OF AMPHETAMINE, FENFLURAMINE AND NORFENFLURAMINE STEREOISOMERS ON THE INCREASE OF STRIATUM HOMOVANILLIC ACID IN RATS.
156759 04-03

NORFENFLURAMINE AND SEROTONIN TURNOVER RATE IN THE RAT BRAIN.
157000 04-03

NORMACROMERINE

MACROMERINE, NORMACROMERINE AND BISNORMACROMERINE: NONPSYCHOACTIVE METHYLATED DERIVATIVES OF NOREPINEPHRINE.
150298 04-04

NORMAL

SINGLE DOSE EFFECT OF MARIHUANA SMOKE: BRONCHIAL DYNAMICS AND RESPIRATORY CENTER SENSITIVITY IN NORMAL SUBJECTS.
150620 04-13

STUDY ON THE EFFECT OF A RESERPINE-LIKE SUBSTANCE (TETRABENAZINE) FOLLOWED BY THE ADMINISTRATION OF A TRICYCLIC ANTIDEPRESSANT (DESMETHYLIMIPRAMINE) ON NORMAL SUBJECTS.
151304 04-07

A PERMANENT CHANGE IN CONVULSIVE THRESHOLD IN NORMAL AND BRAIN-DAMAGED RATS WITH REPEATED SMALL DOSES OF PENTYLENETETRAZOL.
152437 04-03

EFFECT OF MAGNESIUM PEMOLINE AND METHYLPHENIDATE ON MEMORY IMPROVEMENT AND MOOD IN NORMAL AGING SUBJECTS.
153054 04-14

TRH: ENHANCEMENT OF DOPA ACTIVITY IN NORMAL INTACT, HYPOPHYSECTOMIZED AND THYROIDECTOMIZED ANIMALS.
155252 04-03

GLYCOGEN CONTENT AND PHOSPHORYLASE ACTIVITY IN LIVER AND SKELETAL MUSCLE OF NORMAL AND CHRONICALLY MORPHINIZED RATS.
156638 04-03

A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. I. SUBJECTIVE EXPERIENCES.
157343 04-14

THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. II. PITUITARY THYROID RESPONSES.
157344 04-13

L-DOPA AND REM SLEEP IN NORMAL AND MENTALLY RETARDED SUBJECTS.
157496 04-14

EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING.
158000 04-04

THE EFFECTS OF HYPOTHALAMIC IMPLANTS OF ALDOSTERONE, ANGIOTENSIN II, CARBACOL, NOREPINEPHRINE, AND NACL ON WATER AND NACL INTAKE IN NORMAL AND ADRENALECTOMIZED RATS.
159391 04-04

EFFECTS OF CHRONICALLY ADMINISTERED L-DOPA IN NORMAL AND LESIONED CATS.
163767 04-03

FLUNITRAZEPAM (RO-5-4200) AND SLEEP CYCLE IN NORMAL SUBJECTS.
163773 04-14

PREDICTION OF THERAPEUTIC USES OF PSYCHOTHERAPEUTIC DRUGS FROM EXPERIENCES WITH NORMAL VOLUNTEERS.
167106 04-14

A SCIENTIFIC RATIONALE FOR CHOOSING PATIENTS RATHER THAN NORMAL SUBJECTS FOR PHASE I STUDIES.
167107 04-14

NORMOTENSIVE

NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS.
160854 04-04

NORTRIPTYLINE

METABOLISM OF AMITRIPTYLINE, NORTRIPTYLINE, IMIPRAMINE AND DESIPRAMINE TO YIELD HYDROXYLAMINES.
156762 04-01

COMPARATIVE PHARMACOKINETICS OF OXAZEPAM AND NORTRIPTYLINE AFTER SINGLE ORAL DOSES IN MAN.
160469 04-13

NOT-TRANQUILLIZING

DIFFERENTIAL EFFECTS ON MOUSE BRAIN CATECHOLAMINE TURNOVER OF CHLORPROMAZINE, TRIFLUOPERAZINE AND CLOSELY-RELATED NOT-TRANQUILLIZING ANALOGUES.
161145 04-13

NOVERIL

THE ACTION OF NOVERIL ON THE BIOELECTRIC ACTIVITY OF THE BRAIN.
150744 04-09

NOXIPTILINE

DOUBLE-BLIND TEST OF THREE ANTIDEPRESSANTS. SECOND COMMUNICATION: CLINICAL COMPARISON OF NOXIPTILINE, NOR-NOXIPTILINE AND AMITRIPTYLINE WITH THE AMP SYSTEM.
156849 04-09

NUCLEUS

THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03

A PROJECTION OF THE NUCLEUS LOCUS-COERULEUS TO THE HIPPOCAMPUS OF THE RAT. (UNPUBLISHED PAPER).
164836 04-03

NUMERICAL
A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

NUTMEG
BEHAVIORAL OBSERVATIONS ON COMPOUNDS FOUND IN NUTMEG.
158003 04-04
EVIDENCE FOR THE BIOGENIC FORMATION OF AMPHETAMINE DERIVATIVES FROM COMPONENTS OF NUTMEG.
165997 04-01

N6O2-DIBUTYRYL
EFFECT OF N6O2-DIBUTYRYL CYCLIC 3,5 ADENOSINE MONOPHOSPHATE ON THE PINOCYTOSIS OF BRAIN CAPILLARIES OF MICE.
162960 04-03

O-AMINOPHENOL
COMPARISON BETWEEN O-AMINOPHENOL GLUCURONIDATION IN LIVER SLICES AND HOMOGENATES FROM CONTROL AND PHENOBARBITAL TREATED WISTAR AND GUNN RATS.
151351 04-03

O-METHYLATED
ABNORMAL O-METHYLATED DOPAMINE METABOLITES: THE ENDOGENOUS TOXINS OF SCHIZOPHRENIA OR PARKINSONISM
155905 04-13

OBESITY
OBESITY DEPRESSION: CLINICAL EVALUATION WITH A NEW ANOREXIGENIC AGENT.
155886 04-10

OBJECTIVE
DIAZEPAM AND BENZOCTAMINE: EFFECTS ON CERTAIN OBJECTIVE PARAMETERS OF MUSCULAR SPASTICITY.
160642 04-13

OBSERVATIONS
THE LONG-TERM EFFECT OF PERPHENAZINE ENANTHATE ON THE RAT BRAIN. SOME METABOLIC AND ANATOMICAL OBSERVATIONS.
150668 04-03
PIPERACETAZINE IN CHRONIC MENTAL PATIENTS: CLINICAL OBSERVATIONS AND NEW URINE COLOR TEST.
150831 04-07
METHAQUALONE: METABOLIC, KINETIC, AND CLINICAL PHARMACOLOGIC OBSERVATIONS.
151154 04-13
OBSERVATIONS ON THE USE OF LITHIUM SALTS IN ASSOCIATION WITH PSYCHOTROPIC DRUGS.
151265 04-09
BIOCHEMICAL OBSERVATIONS DURING A TRIAL OF INOSIPLEX IN SENILE DEMENTIA.
156134 04-09
SOME OBSERVATIONS ON THE CIRCADIAN RHYTHM OF LOCOMOTOR ACTIVITY OF MICE AFTER DEPLETION OF CEREBRAL MONOAMINES.
158002 04-03
BEHAVIORAL OBSERVATIONS ON COMPOUNDS FOUND IN NUTMEG.
158003 04-04
OBSERVATIONS OF L-DOPA TREATMENT AND OF ITS SIDE-EFFECTS IN THE AGED.
160138 04-15
SOME OBSERVATIONS ON THE PHARMACOLOGY OF THE STRIATUM.
165191 04-13

OBSERVED
EVALUATION OF THE THERAPEUTIC SPECTRUM OF ENTUMINE-CHLORO-2-11-DIBENZOTHIAZEPINE. STUDY BASED ON 50 CLINICAL CASES OBSERVED.
151305 04-07

OBSESSIVE
ANTIDEPRESSANTS AS A PROPHYLAXIS AGAINST DEPRESSION IN THE OBSESSIVE COMPULSIVE PERSON.
163329 04-10

OCCUPATIONAL
RESULTS OF THE EFFECTS OF FLUSPIRILENE ON CHRONIC SCHIZOPHRENIC PATIENTS UNDERGOING OCCUPATIONAL THERAPY.
160216 04-08

OFFENDERS
BENPERIDOL IN THE TREATMENT OF SEXUAL OFFENDERS.
159408 04-11

OFFICE
PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09

OFFSPRING
EFFECTS ON OFFSPRING BEHAVIOR OF PARENTAL EARLY DRUG EXPERIENCE AND CROSS-FOSTERING.
157043 04-04

OLFACTORY
OLFACTORY FOREBRAIN SEIZURES INDUCED BY METHAMPHETAMINE AND DISULFIRAM.
166064 04-03

ON-OFF
ON-OFF PHENOMENA RELATED TO HIGH PLASMA LEVODOPA.
159552 04-15

OPERANT
VEHICLE AND ROUTE OF ADMINISTRATION AS PARAMETERS AFFECTING OPERANT BEHAVIORAL EFFECTS OF DELTA9-TETRAHYDROCANNABINOL.
150414 04-04
INFLUENCE OF CHANGES IN ADRENERGIC AND CHOLINERGIC ACTIVITY UPON ACQUISITION OF OPERANT DISCRIMINATION IN ALBINO RATS.
154639 04-04
EFFECTS OF CHLORPROMAZINE AND DIAZEPAM ON OPERANT RESPONSE DURATION IN RATS.
158489 04-04
THE EFFECTS OF CHOLINERGIC DRUGS ON OPERANT BEHAVIOUR OF THE RAT. (PH.D. DISSERTATION).
160910 04-04
THE EFFECTS OF N,N DIMETHYLTRYPTAMINE ON OPERANT BEHAVIOR IN SQUIRREL MONKEYS.
162274 04-04
THE DIFFERENTIATION OF OPERANT AND ADJUNCTIVE BEHAVIORS. (PH.D. DISSERTATION).
167237 04-04

OPERATIONS
TREATMENT OF PARKINSONISM BY THE USE OF L-DOPA AND THALAMIC OPERATIONS.
161558 04-13

OPIATE
OPIATE RECEPTOR: DEMONSTRATION IN NERVOUS TISSUE.
150381 04-03
RECENT RESEARCH ON OPIATE ADDICTION -- REVIEW OF A NATIONAL PROGRAM.
155240 04-17
MULTIMODALITY APPROACHES TO THE TREATMENT AND PREVENTION OF OPIATE ADDICTION.
155241 04-17
OPIATE DEPENDENCE PRODUCED BY AD LIBITUM DRINKING OF MORPHINE IN WATER, SALINE, AND SUCROSE VEHICLES.
157147 04-04

OPPORTUNITIES
CROSS-CULTURAL OPPORTUNITIES AND PROBLEMS IN STUDIES OF CHRONIC HASHISH USERS IN GREECE.
155264 04-15

OPPOSITE
LITHIUM AND AMPHETAMINE: OPPOSITE EFFECTS ON THRESHOLD OF INTRACRANIAL REINFORCEMENT.
157045 04-04

OPTICAL
SELF-ADMINISTRATION OF OPTICAL ISOMERS OF AMPHETAMINE AND METHYLAMPHETAMINE BY RATS.
163766 04-04

OPTIMUM
ADMINISTRATION OF AMANTADINE TO PATIENTS ON OPTIMUM L-DOPA DOSAGE.
151690 04-11
OPTIMUM USE OF ANTIPSYCHOTIC DRUGS.
153795 04-08

ORAL
ORAL MEDICATIONS FOR MINIMAL BRAIN DYSFUNCTION IN CHILDREN.
150550 04-11
SUBCHRONIC ORAL DOSES OF MARIHUANA EXTRACT.
153106 04-13
USE OF ORAL DDT IN THREE HUMAN BARBITURATE INTOXICATIONS: HEPATIC ENZYME INDUCTION BY RECIPROCAL DETOXICANTS.
155205 04-15
FLUPHENAZINE DECANOATE TRIAL IN CHRONIC INPATIENT SCHIZOPHRENICS FAILING TO ABSORB ORAL CHLORPROMAZINE.
156741 04-08
HOSPITAL TESTING OF AN ORAL LONG-TERM NEUROLEPTIC: PENFLURIDOL.
156892 04-08
A DOUBLE-BLIND COMPARISON OF HALOPERIDOL ORAL CONCENTRATE, HALOPERIDOL SOLUTABS AND PLACEBO IN THE TREATMENT OF CHRONIC SCHIZOPHRENIA.
156939 04-08
INTERACTION OF BENZODIAZEPINES WITH ORAL ANTICOAGULANTS.
158303 04-14
COMPARATIVE PHARMACOKINETICS OF OXAZEPAM AND NORTRIPTYLINE AFTER SINGLE ORAL DOSES IN MAN.
160469 04-13
CHLORIMIPRAMINE: A DOUBLE-BLIND COMPARISON OF INTRAVENOUS VERSUS ORAL ADMINISTRATION IN DEPRESSED PATIENTS.
166729 04-09

ORGAN
STIMULATION OF SEROTONIN N-ACETYLTRANSFERASE IN PINEAL ORGAN CULTURE BY DRUGS. (UNPUBLISHED PAPER).
154364 04-03

PHARMACOKINETIC INTERACTION BETWEEN NEUROLEPTICS AND ANTIDEPRESSANTS: EFFECT ON ORGAN DISTRIBUTION AND METABOLIC PATTERN.
166984 04-03

ORGANIC
ORGANIC BRAIN SYNDROME DURING LITHIUM CARBONATE TREATMENT.
153271 04-15

THE EFFECT OF PHENOBARBITONE ANESTHESIA UPON SOME ORGANIC PHOSPHATES, GLYCOLYTIC METABOLITES AND CITRIC ACID CYCLE ASSOCIATED INTERMEDIATES OF THE RAT BRAIN.
160226 04-03

ORGANISM
LYSERGIC ACID DIETHYLAMIDE: ITS EFFECTS ON HUMAN CHROMOSOMES AND THE HUMAN ORGANISM IN UTERO. A REVIEW OF CURRENT FINDINGS.
156527 04-15

ORIENTED
SINGLE PATIENT ORIENTED NEUROPSYCHOPHARMACOLOGY.
164269 04-14

ORIENTING
SKIN POTENTIAL ORIENTING RESPONSES IN DRUG TREATED AND NONDRUG TREATED DEPRESSED INPATIENTS.
159395 04-09

ORPHENADRINE
COMPARISON OF AMANTADINE, ORPHENADRINE, AND PLACEBO IN THE CONTROL OF PHENOTHIAZINE INDUCED PARKINSONISM.
153122 04-15

ORTHO-QUINONES
EVIDENCE FOR DEGENERATION OF SYMPATHETIC NERVE TERMINALS CAUSED BY THE ORTHO-QUINONES AND PARA-QUINONES OF 6-HYDROXYDOPAMINE.
157178 04-03

ORTHODOXY
MEDICAL ORTHODOXY AND ORTHOMOLECULAR PSYCHIATRY.
163998 04-08

ORTHOMOLECULAR
ORTHOMOLECULAR PSYCHIATRY: TREATMENT OF SCHIZOPHRENIA.
150971 04-08

ORTHOMOLECULAR THERAPY.
163997 04-08

MEDICAL ORTHODOXY AND ORTHOMOLECULAR PSYCHIATRY.
163998 04-08

OUABAIN
POTENTIATING MECHANISM BY OUABAIN ON CONTRACTIONS OF GUINEA-PIG VAS-DEFERENS TO 5-HT AND OTHER AMINES.
158475 04-03

HIPPOCAMPAL EPILEPSY PRODUCED BY OUABAIN: STUDIES OF CEREBRAL CIRCULATION AND IONIC METABOLISM.
160649 04-03

OUTCOME
METABOLISM, ANTICHOLINERGIC EFFECTS, AND THERAPEUTIC OUTCOME OF DESMETHYLIMIPRAMINE IN DEPRESSIVE ILLNESS.
153121 04-09

PSYCHIATRIC CASE STUDIES: TREATMENT, DRUGS, AND OUTCOME.
154482 04-17

POSITIVE OUTCOME IN PSYCHIATRIC CRISIS: EVALUATION OF THIORIDAZINE CONCENTRATE IN AN INTENSIVE, SHORT-TERM PSYCHIATRIC PROGRAM.
155793 04-10

OUTPATIENT
A SINGLE-BLIND EVALUATION OF THIOTHIXENE WITH OUTPATIENT SCHIZOPHRENIC CHILDREN.
150434 04-08

PECULIARITIES OF THE TREATMENT OF EPILEPTIC DYSPHORIAS IN OUTPATIENT PRACTICE.
151811 04-11

A DOUBLE-BLIND COMPARISON OF HALOPERIDOL (HALDOL) AND THIORIDAZINE (MELLARIL) IN OUTPATIENT CHILDREN.
152212 04-11

OUTPATIENT MANAGEMENT OF CHRONIC SCHIZOPHRENICS WITH FLUPHENAZINE ENANTHATE (PROLIXIN ENANTHATE): A CLINICAL EVALUATION.
164217 04-08

OUTPATIENTS
THE TREATMENT OF SEVERE ANXIETY IN OUTPATIENTS: A CONTROLLED STUDY COMPARING CHLORDIAZEPOXIDE AND CHLORPROMAZINE.
155794 04-10

IMPROVING SCHEDULING AND REDUCING COSTS OF PSYCHOTROPIC DRUGS FOR OUTPATIENTS.
157291 04-17

PREDICTORS OF RESPONSE TO BENZODIAZEPINES IN ANXIOUS OUTPATIENTS.
158286 04-14

RELATIONSHIP OF CLINICAL AND DEMOGRAPHIC VARIABLES TO COMMUNITY ADJUSTMENT OF SCHIZOPHRENIC OUTPATIENTS ON CHEMOTHERAPY. (ED. D. DISSERTATION).
158779 04-08

DOUBLE-BLIND COMPARISON OF HALOPERIDOL AND THIORIDAZINE IN TREATMENT RESISTANT PSYCHONEUROTIC OUTPATIENTS.
163337 04-10

OVERDOSAGE
OVERDOSAGE AND/OR POISONING -- THE INFORMATION GAP.
156641 04-15

BETA BLOCKADE IN THE TREATMENT OF TRICYCLIC ANTIDEPRESSANT OVERDOSAGE.
159585 04-05

OVERDOSE
CLINICAL PEARLS: OVERDOSE OF PSYCHOTROPIC DRUGS.
158261 04-15

OVERNIGHT
PHENOTHIAZINE INDUCED T-WAVE ABNORMALITIES: EFFECTS OF OVERNIGHT FASTING.
152961 04-15

OVULATION
EVIDENCE FOR NONINVOLVEMENT OF CENTRAL CATECHOLAMINES IN COPPER ACETATE INDUCED OVULATION.
163797 04-03

OXAZEPAM
HOW ANTAGONISTIC CAN DOCTORS BIAS BE ON DRUG EFFECT? OXAZEPAM AS AN ANTIANXIETY AGENT.
160215 04-14

COMPARATIVE PHARMACOKINETICS OF OXAZEPAM AND NORTRIPTYLINE AFTER SINGLE ORAL DOSES IN MAN.
160469 04-13

OXIDASE
THE COMPLEXITY OF THE INHIBITORY ACTION OF DICOUMAROL ON THE MIXED FUNCTION OXIDASE SYSTEM OF RAT LIVER MICROSOMES.
150582 04-03

NEW THERAPEUTIC POSSIBILITIES IN DEPRESSIONS: TRYPTOPHAN AND INHIBITORS OF MONOAMINE OXIDASE.
151394 04-10

REM SLEEP AND CENTRAL MONOAMINE OXIDASE INHIBITION.
152122 04-13

SPECIFIC IRREVERSIBLE INHIBITORS OF MONOAMINE OXIDASE.
156874 04-01

CURRENT STATUS OF MONOAMINE OXIDASE INHIBITORS IN PSYCHIATRY.
159544 04-09

THE MONOAMINE OXIDASE INHIBITOR, PHENELZINE, IN THE TREATMENT OF DEPRESSIVE ANXIETY STATES.
159776 04-09

THE METABOLISM OF INDOLEALKYLAMINES BY TYPE A AND B MONOAMINE OXIDASE OF BRAIN. (UNPUBLISHED PAPER).
160457 04-03

POSSIBLE RATIONALE FOR PROCAINE (GEROVITAL-H3) THERAPY IN GERIATRICS: INHIBITION OF MONOAMINE OXIDASE.
160951 04-11

DEXTROMETHORPHAN MONOAMINE OXIDASE INHIBITOR INTERACTION IN RABBITS.
163801 04-03

SPECIFIC IRREVERSIBLE INHIBITORS OF MONOAMINE OXIDASE.
164855 04-01

INHIBITORY EFFECT OF GEROVITAL-H3 AND PROCAINE ON MONOAMINE OXIDASE IN RAT BRAIN, LIVER, HEART AND PLATELETS.
166386 04-11

THE NATURE OF THE INHIBITION OF MONOAMINE OXIDASE PRODUCED BY GEROVITAL-H3.
166388 04-03

OXIDATION
THE OXIDATION OF 6-HYDROXYDOPAMINE.
161140 04-01

OXIDATIVE
EFFECTS OF CHLORPROMAZINE AND PHENOBARBITAL ON RAT LIVER AND BRAIN OXIDATIVE N-OXIDASE AND N-DEMETHYLASE ACTIVITIES.
150399 04-03

OXOTREMORINE
INTERACTION OF OXOTREMORINE WITH ATROPINE, CHLORPROMAZINE, CYPROHEPTADINE, IMIPRAMINE AND PHENOXYBENZAMINE ON THE FLEXOR REFLEX OF THE CHRONIC SPINAL DOG.
150318 04-03

PHARMACOLOGICAL STUDIES ON MECHANISM OF ANTIPARKINSONIAN DRUGS (REPORT 2): ELEVATION OF STRIATAL HOMOVANILLIC ACID CONTENT BY OXOTREMORINE AND ITS MODIFICATION BY ANTICHOLINERGICS.
158501 04-03

OXYGEN
INHIBITION OF STIMULATED CEREBRAL RESPIRATION IN VITRO AND OXYGEN CONSUMPTION IN VIVO IN RATS TREATED BY CHOLINOLYTIC DRUGS.
156639 04-03

EFFECT OF SULPIRIDE ON OXYGEN UPTAKE BY RATS BRAIN TISSUE IN VITRO.
165411 04-03

P-CHLOROMETHAMPHETAMINE
DIURNAL RHYTHM IN BEHAVIORAL EFFECTS OF METHAMPHETAMINE, P-CHLOROMETHAMPHETAMINE AND SCOPOLAMINE.
159366 04-04

P-CHLOROPHENYLALANINE
ALTERATION OF SEXUAL BEHAVIOR AND SEX ACCESSORY GLANDS BY P-CHLOROPHENYLALANINE AND TESTOSTERONE.
150422 04-04

5-HYDROXYTRYPTAMINE SUPERSENSITIVITY AS A NEW THEORY OF HEADACHE AND CENTRAL PAIN: A CLINICAL PHARMACOLOGICAL APPROACH WITH P-CHLOROPHENYLALANINE.
150670 04-15

THE INFLUENCE OF P-CHLOROPHENYLALANINE ON THE EFFECT OF 5-HYDROXYTRYPTOPHAN ON SPINAL SYNAPTIC ACTIVITY IN CHRONIC SPINAL AND RESERPINIZED CATS.
154959 04-03

A STUDY OF THE TRANYLCYPROMINE MEPERIDINE INTERACTION: EFFECTS OF P-CHLOROPHENYLALANINE AND 1 5-HYDROXYTRYPTOPHAN.
157065 04-03

EFFECTS OF RESERPINE, 6-HYDROXYDOPAMINE, P-CHLOROPHENYLALANINE AND A COMBINATION OF THESE SUBSTANCES ON THE GROOMING BEHAVIOUR OF MICE.
158001 04-04

EFFECT OF P-CHLOROPHENYLALANINE ON THE INTERACTION BETWEEN PHENELZINE AND PETHIDINE IN CONSCIOUS RABBITS.
160201 04-04

EFFECTS OF P-CHLOROPHENYLALANINE AND 5-HYDROXYTRYPTOPHAN ON SLEEP - WAKEFULNESS AND THE CENTRAL METABOLISM OF MONOAMINES AND PROTEINS IN THE CAT.
166692 04-04

PADS
NO PRESCRIPTION PADS FOR SOCIAL WORKERS.
161630 04-17

PAIN
5-HYDROXYTRYPTAMINE SUPERSENSITIVITY AS A NEW THEORY OF HEADACHE AND CENTRAL PAIN: A CLINICAL PHARMACOLOGICAL APPROACH WITH P-CHLOROPHENYLALANINE.
150670 04-15

RELIEVING PAIN IN THE TERMINALLY ILL.
162311 04-11

THE EFFECTS OF ANTIDEPRESSANT DRUGS ON PAIN RELIEF AND MOOD IN THE CHRONICALLY ILL: A DOUBLE-BLIND STUDY.
163331 04-11

PAIRED
EFFECTS OF CS-386 AND CLOXAZOLAM ON CONDITIONED BEHAVIOR OF PAIRED MONKEYS.
158491 04-04

PAIRS
EFFECTS OF LITHIUM CHLORIDE ON THE ACTIVITY OF RATS TESTED ALONE OR IN PAIRS.
150356 04-04

PALLIDUM
SYNAPTIC CHANGES IN THE RABBIT PALLIDUM FOLLOWING LONG-TERM HALOPERIDOL ADMINISTRATION.
152027 04-05

PALMITATE
A LONG-TERM PILOT STUDY OF PIPOTHIAZINE PALMITATE IN CHRONIC SCHIZOPHRENIA.
150832 04-08

PANAMA
NEW DRUG DEVELOPMENTS IN THE LATIN-AMERICAS (ARGENTINA, COSTA-RICA, MEXICO, AND PANAMA).
155273 04-17

PANAX
EFFECT OF GINSENOSIDE-RGL, A SAPONIN OF PANAX GINSENG ROOT, ON LEARNING AND MEMORY IN RATS.
158490 04-04

PAPIO-PAPIO
EFFECTS OF L-TRYPTOPHAN, L-3,4,DIHYDROXYPHENYLALANINE AND TRANYLCYPROMINE ON THE ELECTROENCEPHALOGRAM AND ON PHOTICALLY INDUCED EPILEPSY IN THE BABOON, PAPIO-PAPIO.
152044 04-03

EFFECTS OF CHRONIC ADMINISTRATION OF BENZODIAZEPINES ON EPILEPTIC SEIZURES AND BRAIN ELECTRICAL ACTIVITY IN PAPIO-PAPIO.
158290 04-03

PARA-CHLOROPHENYLALANINE
PARA-CHLOROPHENYLALANINE: ITS EFFECTS ON AUDITORY DISCRIMINATION.
153104 04-04

PHYSIOLOGICAL AND BEHAVIORAL EFFECTS OF PARA-CHLOROPHENYLALANINE IN THE RAT.
157143 04-03

PARA-METHOXYPHENYLETHYLAMINE
EFFECT OF PARA-METHOXYPHENYLETHYLAMINE ON POLYSYNAPTIC PATHWAYS AND ON INTERNEURONS OF THE CAT LUMBAR SPINAL CORD.
157112 04-03

PARA-QUINONES
EVIDENCE FOR DEGENERATION OF SYMPATHETIC NERVE TERMINALS CAUSED BY THE ORTHO-QUINONES AND PARA-QUINONES OF 6-HYDROXYDOPAMINE.
157178 04-03

PARACETAMOL
CLINICAL TOXICOLOGY VII. POISONING BY SALICYLATES, PARACETAMOL, TRICYCLIC ANTIDEPRESSANTS AND A MISCELLANY OF DRUGS.
159588 04-15

PARADIGM
DISRUPTION OF DISSOCIATED LEARNING IN A DISCRIMINATION PARADIGM BY EMOTIONALLY IMPORTANT STIMULI.
157044 04-04

PARADIGMS
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) ON SEVERAL RODENT LEARNING PARADIGMS.
167040 04-04

PARAMAGNETIC
PARAMAGNETIC ION INDUCED SHIFTS IN THE NMR SPECTRA OF RESERPINE AND METHYL 3,4,5 TRIMETHOXYBENZOATE.
156867 04-06

PARAMETERS
INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04

VEHICLE AND ROUTE OF ADMINISTRATION AS PARAMETERS AFFECTING OPERANT BEHAVIORAL EFFECTS OF DELTA9-TETRAHYDROCANNABINOL.
150414 04-04

DIAZEPAM AND BENZOCTAMINE: EFFECTS ON CERTAIN OBJECTIVE PARAMETERS OF MUSCULAR SPASTICITY.
160642 04-13

LU-5-003 IN ANTIDEPRESSIVE THERAPY. A CONTROLLED CLINICAL TEST WITH SIMULTANEOUS MEASUREMENT OF PHARMACOKINETIC PARAMETERS. PRELIMINARY REPORT.
166982 04-13

PARANOID
PARANOID DISORDERS IN THE ELDERLY.
150845 04-09

NONPHARMACOLOGICAL EFFECTS OF DRUGS AND THE PARANOID STATE.
161159 04-17

PHENOTHIAZINE EFFECTS IN GOOD PREMORBID SCHIZOPHRENICS DIVIDED INTO PARANOID NONPARANOID STATUS.
162169 04-08

PARASYMPATHETICS
NEUROMUSCULAR BLOCKING DRUGS AND THE HEART RATE RESPONSE TO DIRECT PREGANGLIONIC STIMULATION OF THE SYMPATHETICS AND PARASYMPATHETICS IN THE CAT.
153171 04-03

PARENTAL
EFFECTS ON OFFSPRING BEHAVIOR OF PARENTAL EARLY DRUG EXPERIENCE AND CROSS-FOSTERING.
157043 04-04

PARGYLINE
INFLUENCE OF AMPHETAMINES, PROTRIPTYLINE AND PARGYLINE ON THE TIME COURSE OF THE NOREPINEPHRINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RAT BRAIN.
165790 04-03

PARKINSON
SHORT-TERM EFFECTS OF ADAMANTYLAMINE SULFATE INFUSIONS IN PARKINSON PATIENTS.
152111 04-11

ON THE THERAPY OF THE PARKINSON SYNDROME.
156891 04-11

PARKINSONIAN
BRAIN CATECHOLAMINES AND THEIR METABOLITES IN PARKINSONIAN PATIENTS: TREATMENT WITH LEVODOPA ALONE OR COMBINED WITH A DECARBOXYLASE INHIBITOR.
150218 04-13

ROLE OF MONOAMINES IN THE PSYCHOPATHOLOGY OF MOTORICITY: IMPLICATED NEURAL CIRCUITS IN THE PSYCHOPATHOLOGY OF PARKINSONIAN SYNDROMES.
150219 04-11

INDICATIONS AND RESULTS OF MONOAMINE TREATMENT IN THE PARKINSONIAN SYNDROME.
150220 04-11

SPEECH DEFECTS OF PARKINSONIAN PATIENTS: EFFECTS OF LEVODOPA THERAPY ON SPEECH INTELLIGIBILITY.
156075 04-14

ACID MONOAMINE METABOLITES IN THE CEREBROSPINAL FLUID OF PARKINSONIAN PATIENTS TREATED WITH LEVODOPA ALONE OR COMBINED WITH DECARBOXYLASE INHIBITOR.
160650 04-13

PARKINSONISM
MENTAL SYMPTOMS AND PARKINSONISM.
151045 04-15

NEW DRUGS IN THE TREATMENT OF PARKINSONISM.
151377 04-11

BIOCHEMICAL AND PHARMACOLOGICAL ASPECTS OF PARKINSONISM.
151683 04-13

RECENT ADVANCES IN THE TREATMENT OF PARKINSONISM WITH DRUGS.
151685 04-11

TREATMENT OF PARKINSONISM WITH L-DOPA AND DECARBOXYLASE INHIBITOR: AN ELECTROPHYSIOLOGICAL STUDY.
151688 04-11

TREATMENT OF PARKINSONISM WITH A COMBINATION OF LEVODOPA AND THE DECARBOXYLASE INHIBITOR RO-4-4602 (A COMPARISON WITH LEVODOPA TREATMENT ALONE).
151689 04-07

TREATMENT OF PARKINSONISM WITH A COMPOUND OF L-DOPA (LARODOPA) AND A DECARBOXYLASE INHIBITOR (RO-4-4602).
151691 04-11

TREATMENT FAILURES WITH L-DOPA IN PARKINSONISM.
151692 04-11

THE INFLUENCE OF L-DOPA ON PHYSICAL TREATMENT OF PARKINSONISM.
151694 04-11

LONG-TERM TREATMENT OF PARKINSONISM WITH L-DOPA.
151696 04-11

PHARMACOLOGICAL THERAPY OF PARKINSONISM WITH LEVODOPA.
152978 04-17

COMPARISON OF AMANTADINE, ORPHENADRINE, AND PLACEBO IN THE CONTROL OF PHENOTHIAZINE INDUCED PARKINSONISM.
153122 04-15

LEVODOPA FOR PARKINSONISM IN ELDERLY AND DEMENTED PATIENTS.
153263 04-11

ABNORMAL O-METHYLATED DOPAMINE METABOLITES: THE ENDOGENOUS TOXINS OF SCHIZOPHRENIA OR PARKINSONISM
155905 04-13

MK-486 AND LEVODOPA IN TREATMENT OF PARKINSONISM.
156739 04-07

CERTAIN PREDICTIONS ON THE EFFECTIVENESS OF L-DOPA ON PARKINSONISM.
156778 04-11

PSYCHOLOGICAL ASPECTS OF SHORT-TERM VERSUS LONG-TERM L-DOPA THERAPY IN PARKINSONISM. (PH.D. DISSERTATION).
159895 04-14

TREATMENT OF PARKINSONISM BY THE USE OF L-DOPA AND THALAMIC OPERATIONS.
161558 04-13

PERMANENT DEMENTIA IN IDIOPATHIC PARKINSONISM TREATED WITH LEVODOPA.
166033 04-15

PARKINSONS
COMPARISON OF L-DOPA WITH ITS ASSOCIATION WITH AN L-DOPA DECARBOXYLASE INHIBITOR IN THE MANAGEMENT OF PARKINSONS DISEASE.
150631 04-15

LEVODOPA IN PARKINSONS DISEASE -- AUSTRALIAN COLLABORATIVE TRIAL.
150789 04-14

PLASMA TESTOSTERONE CONTENT OF MALE PATIENTS WITH PARKINSONS DISEASE DURING L-DOPA TREATMENT WITH OR WITHOUT DOPADECARBOXYLASE INHIBITOR.
151695 04-15

TREATMENT OF PARKINSONS SYNDROME WITH A COMBINATION OF LEVODOPA AND THIETHYL-PERAZINE -- A PRELIMINARY STUDY.
154783 04-11

PARKINSONS DISEASE: MODERN TREATMENT.
161673 04-13

SENSORIMOTOR COORDINATION IN PARKINSONS DISEASE BEFORE AND AFTER LEVODOPA THERAPY.
163805 04-13

THE METABOLISM OF 3H-TYROSINE AND 3H-DIHYDROXYPHENYLALANINE IN PARKINSONS DISEASE. (PH.D. DISSERTATION).
164443 04-13

PAROTITIS
ACUTE PAROTITIS ASSOCIATED WITH DEPRESSION AND PSYCHOACTIVE DRUG THERAPY.
155089 04-14

PAROXYSMS
PECULIARITIES OF THE TREATMENT OF EPILEPTIC PATIENTS WITH PSYCHOMOTOR PAROXYSMS.
151806 04-11

PARTICIPATION
PARTICIPATION OF RETINAL MECHANISMS IN DMT HALLUCINATIONS.
163633 04-03

PARTICULATE
LOCALIZATION IN BRAIN PARTICULATE FRACTIONS OF NARCOTIC ANALGESIC DRUGS ADMINISTERED INTRACISTERNALLY TO RATS.
157185 04-03

PASSAGE
TRANSPLACENTAL PASSAGE OF PRIMIDONE.
152137 04-15

PASSIVE
THE EFFECT OF ALPHA-AMANITIN ON PASSIVE AND ACTIVE AVOIDANCE ACQUISITION IN MICE.
157154 04-04

EFFECT OF PROPRANOLOL ON FREE FATTY ACIDS OF MICE PLASMA DURING A PASSIVE AVOIDANCE TEST.
157155 04-03

THE ROLE OF STRESS IN PASSIVE AVOIDANCE TASKS. (PH.D. DISSERTATION).
159175 04-17

PATHOBIOLOGICAL
PATHOBIOLOGICAL MECHANISMS OF ANTIDEPRESSANT AND ANTIPSYCHOTIC DRUG TOXICITY. (PH.D. DISSERTATION).
159822 04-03

PATHOGENESIS
THE EFFECT OF GEROVITAL-H3 ON THE GROWTH RATE OF AGED MOUSE EMBRYO FIBROBLASTS AND ON THE PATHOGENESIS INDUCED BY A RNA C-TYPE VIRUS.
166387 04-03

PATHOGENIC
SOME PATHOGENIC MECHANISMS OF THE THERAPEUTIC EFFICACY OF ATROPINE IN ANANCASTIC SYNDROMES.
156555 04-10

PATHWAYS
EFFECT OF PARA-METHOXYPHENYLETHYLAMINE ON POLYSYNAPTIC PATHWAYS AND ON INTERNEURONS OF THE CAT LUMBAR SPINAL CORD.
157112 04-03

PATHWAYS OF METABOLISM OF THE BENZODIAZEPINES.
160465 04-13

PATIENT
LITHIUM CARBONATE IN THE AMBULATORY, CHRONICALLY PSYCHOTIC PATIENT.
150347 04-08

GILLES-DE-LA-TOURETTES DISEASE AND MINIMAL BRAIN DYSFUNCTION: AMPHETAMINE ISOMERS REVEAL CATECHOLAMINE CORRELATES IN AN AFFECTED PATIENT.
153097 04-11

SYMPTOMATIC VOLUNTEERS: ANOTHER PATIENT DIMENSION FOR CLINICAL TRIALS.
156938 04-16

THE CASE FOR REPORTING THE DRUG STATUS OF PATIENT SUBJECTS IN EXPERIMENTAL STUDIES OF SCHIZOPHRENIC PSYCHOPATHOLOGY.
159043 04-06

MUTISM AND HYPERTHERMIA IN A PATIENT TREATED WITH NEUROLEPTICS.
163202 04-15

SINGLE PATIENT ORIENTED NEUROPSYCHOPHARMACOLOGY.
164269 04-14

PATIENTS
CLINICAL EXPERIENCE WITH A COMBINATION OF CHLORIMIPRAMINE AND THYROID EXTRACT IN THE TREATMENT OF PATIENTS SUFFERING FROM DEPRESSION.
149746 04-10

BRAIN CATECHOLAMINES AND THEIR METABOLITES IN PARKINSONIAN PATIENTS: TREATMENT WITH LEVODOPA ALONE OR COMBINED WITH A DECARBOXYLASE INHIBITOR.
150218 04-13

URINARY EXCRETION OF MONOAMINES AND METABOLITES IN PATIENTS DEPENDENT ON AND WITHDRAWN FROM BARBITURATES.
150293 04-13

DOSAGE CONTROL OF DRUGS WITH LETHAL POTENCY FOR UNIVERSITY LEVEL PATIENTS.
150579 04-15

REFLECTIONS ON A 3-YEAR TREATMENT OF 120 PATIENTS WITH A NEW ANTIDEPRESSANT.
150645 04-09

PIPERACETAZINE IN CHRONIC MENTAL PATIENTS: CLINICAL OBSERVATIONS AND NEW URINE COLOR TEST.
150831 04-07

A CONTROLLED DOUBLE-BLIND COMPARISON BETWEEN LOXAPINE SUCCINATE AND CHLORPROMAZINE IN ACUTE NEWLY HOSPITALIZED SCHIZOPHRENIC PATIENTS.
150835 04-08

ADMINISTRATION OF AMANTADINE TO PATIENTS ON OPTIMUM L-DOPA DOSAGE.
151690 04-11

PLASMA TESTOSTERONE CONTENT OF MALE PATIENTS WITH PARKINSONS DISEASE DURING L-DOPA TREATMENT WITH OR WITHOUT DOPADECARBOXYLASE INHIBITOR.
151695 04-15

COMPARATIVE DATA FROM A STUDY OF THE METABOLISM OF BIOGENIC AMINES OF EPILEPTIC PATIENTS IN A PSYCHOTIC STATE.
151803 04-13

ON CLINICOIMMUNOLOGIC CORRELATIONS IN THE EVALUATION OF REMISSIONS IN PATIENTS WITH DELAYED EPILEPTIC PSYCHOSES.
151805 04-11

PECULIARITIES OF THE TREATMENT OF EPILEPTIC PATIENTS WITH PSYCHOMOTOR PAROXYSMS.
151806 04-11

SOME DATA ON TEGRETOL THERAPY FOR PATIENTS WITH EPILEPSY.
151807 04-11

USE OF LEPTRIL IN THE TREATMENT OF DYSPHORIAS IN EPILEPTIC PATIENTS.
151810 04-11

PRELIMINARY REPORT TREATMENT WITH RO-5-3350 ON AMBULATORY NEUROTIC PATIENTS.
151947 04-07

MANAGEMENT OF EMOTIONAL DISTURBANCES IN GERIATRIC PATIENTS.
152031 04-11

SHORT-TERM EFFECTS OF ADAMANTYLAMINE SULFATE INFUSIONS IN PARKINSON PATIENTS.
152111 04-11

THE THERAPEUTIC EFFECTS OF LORAZEPAN IN PSYCHOTIC PATIENTS TREATED WITH HALOPERIDOL: A DOUBLE-BLIND STUDY.
152209 04-09

TREATMENT OF AMBULATORY NEUROTIC PATIENTS WITH WY-4036, JAKARTA, INDONESIA.
152342 04-10

LEVODOPA FOR PARKINSONISM IN ELDERLY AND DEMENTED PATIENTS.
153263 04-11

INFLUENCE OF LITHIUM CARBONATE ON PATIENTS WITH TEMPORAL EPILEPSY.
153614 04-11

LONG-ACTING PHENOTHIAZINES IN THE PREVENTION OF RELAPSE OF SCHIZOPHRENIC PATIENTS.
155525 04-08

RAPID TRANQUILIZATION OF ACUTELY PSYCHOTIC PATIENTS WITH INTRAMUSCULAR HALOPERIDOL AND CHLORPROMAZINE.
155797 04-09

PSYCHOTROPIC DRUGS, DIABETES AND CHRONIC MENTAL PATIENTS.
155888 04-15

SPEECH DEFECTS OF PARKINSONIAN PATIENTS: EFFECTS OF LEVODOPA THERAPY ON SPEECH INTELLIGIBILITY.
156075 04-14

INFLUENCE OF TIZERTSINE AND TRIFLUOPERAZINE ON MOBILITY OF MAIN NERVOUS PROCESSES IN PATIENTS WITH PRESENILE PSYCHOSIS.
156588 04-11

CHARACTERISTICS OF PENTAZOCINE DEPENDENCE IN HOSPITALIZED PATIENTS AFTER NALOXONE ADMINISTRATION.
157037 04-15

UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE.
158771 04-03

PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09

RESULTS OF THE EFFECTS OF FLUSPIRILENE ON CHRONIC SCHIZOPHRENIC PATIENTS UNDERGOING OCCUPATIONAL THERAPY.
160216 04-08

ACID MONOAMINE METABOLITES IN THE CEREBROSPINAL FLUID OF PARKINSONIAN PATIENTS TREATED WITH LEVODOPA ALONE OR COMBINED WITH DECARBOXYLASE INHIBITOR.
160650 04-13

LSD ASSISTED PSYCHOTHERAPY IN PATIENTS WITH TERMINAL CANCER.
161385 04-11

THE EFFECT OF LITHIUM CARBONATE ON THE SLEEP OF DEPRESSED PATIENTS.
161391 04-14

DRUG TREATMENT OF ANXIETY AND DEPRESSION IN DETOXIFIED ALCOHOLIC PATIENTS.
162170 04-11

VOLTAGE LATERALITY IN THE EEG OF PSYCHIATRIC PATIENTS.
162365 04-08

BARBITURATE TOLERANCE AND PSYCHOLOGICAL FUNCTIONING IN ELDERLY DEPRESSED PATIENTS.
162639 04-09

DRUG DEFAULTING BY PATIENTS ON LONG-ACTING PHENOTHIAZINES.
162646 04-08

LOXAPINE: A SIX-MONTH EVALUATION IN SEVERELY ILL SCHIZOPHRENIC PATIENTS.
163680 04-08

DIAZEPAM IN THE TREATMENT OF INSOMNIA IN PSYCHIATRIC PATIENTS.
163682 04-11

AN UNCONTROLLED CLINICAL TRIAL WITH CLOMIPRAMINE IN THE TREATMENT OF DEPRESSED PATIENTS.
163683 04-09

BEHAVIORAL EFFECTS OF L-DOPA IN SCHIZOPHRENIC PATIENTS.
163754 04-08

THE PHENOMENOLOGY OF MANIA: A NEW LOOK AT SOME OLD PATIENTS.
164719 04-09

MENTAL PATIENTS USED IN TESTING DRUGS.
165564 04-08

RESPONSE THRESHOLD TO L-DOPA IN PSYCHIATRIC PATIENTS.
166068 04-14

EFFECTS OF MODE OF MANAGEMENT ON PLASMA CHLORPROMAZINE IN PSYCHIATRIC PATIENTS.
166721 04-08

CHLORIMIPRAMINE: A DOUBLE-BLIND COMPARISON OF INTRAVENOUS VERSUS ORAL ADMINISTRATION IN DEPRESSED PATIENTS.
166729 04-09

CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE: STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER).
166960 04-09

SIGNIFICANCE OF INFORMATION ON PATIENTS AND PERSONNEL EVALUATED AFTER 5000 SERUM LITHIUM VALUES.
166983 04-17

A SCIENTIFIC RATIONALE FOR CHOOSING PATIENTS RATHER THAN NORMAL SUBJECTS FOR PHASE I STUDIES.
167107 04-14

PATTERN

PATTERN OF SYMPATHETIC NERVOUS SYSTEM (SNS) DISCHARGE AND THE BLOOD PRESSURE RESPONSE TO FOOTSHOCK IN THE RAT.
153202 04-03

EFFECTS OF CHLORPROMAZINE AND PENTOBARBITAL ON PATTERN AND NUMBER OF RESPONSES IN EXTINCTION.
162530 04-04

PHARMACOKINETIC INTERACTION BETWEEN NEUROLEPTICS AND ANTIDEPRESSANTS: EFFECT ON ORGAN DISTRIBUTION AND METABOLIC PATTERN.
166984 04-03

PEAK

THE EFFECT OF CHLORPROMAZINE ON DISCRIMINATION PERFORMANCE AND THE PEAK SHIFT.
157072 04-04

THE EFFECT OF CHLORPROMAZINE ON THE PEAK SHIFT IN THE ALBINO RAT.
157084 04-04

PEARLS

CLINICAL PEARLS: OVERDOSE OF PSYCHOTROPIC DRUGS.
158261 04-15

PECULIARITIES

PECULIARITIES OF THE TREATMENT OF EPILEPTIC PATIENTS WITH PSYCHOMOTOR PAROXYSMS.
151806 04-11

PECULIARITIES OF THE TREATMENT OF EPILEPTIC DYSPHORIAS IN OUTPATIENT PRACTICE.
151811 04-11

PEDIATRIC

PEDIATRIC PSYCHOPHARMACOLOGY OUTSIDE THE UNITED-STATES.
155276 04-17

UNEXPECTED EFFECTS RELATED TO INTERACTIONS OF DRUGS IN PEDIATRIC USE.
160690 04-15

PELLET

THE USE OF D-AMPHETAMINE PELLET IMPLANTATION AS A MODEL FOR D-AMPHETAMINE TOLERANCE IN THE MOUSE.
157038 04-03

PELVIS

ACATHISTIC AND TASIKINETIC (MOVING PELVIS) SYNDROMES AND THE RESTLESS LEGS SYNDROME.
150772 04-15

PEMOLINE

EFFECT OF MAGNESIUM PEMOLINE AND METHYLPHENIDATE ON MEMORY IMPROVEMENT AND MOOD IN NORMAL AGING SUBJECTS.
153054 04-14

PENFLURIDOL

HOSPITAL TESTING OF AN ORAL LONG-TERM NEUROLEPTIC: PENFLURIDOL.
156892 04-08

PENICILLIN

THE EFFECTS OF SPREADING DEPRESSION ON PENICILLIN INDUCED EPILEPTIFORM ACTIVITY IN RAT BRAIN.
152438 04-05

PENTAZOCINE

PENTAZOCINE DEPENDENCY.
154336 04-13

CHARACTERISTICS OF PENTAZOCINE DEPENDENCE IN HOSPITALIZED PATIENTS AFTER NALOXONE ADMINISTRATION.
157037 04-15

MECHANISM OF THE SYNERGISTIC LETHALITY BETWEEN PENTAZOCINE AND VASOPRESSIN IN THE RAT.
157066 04-05

STUDIES ON THE EFFECTS OF PENTAZOCINE ON THE RESPIRATION OF RABBITS.
158483 04-03
SERUM AND BRAIN CONCENTRATIONS OF PENTAZOCINE IN RELATION TO ANALGESIC ACTIVITY IN MICE.
167018 04-03

PENTOBARBITAL
EFFECT OF PENTOBARBITAL ON AMINO ACID AND UREA FLUX IN THE ISOLATED DOG BRAIN.
151733 04-03
AN EVALUATION OF TIME-DEPENDENT CHANGES IN SUSCEPTIBILITY OF MICE TO PENTOBARBITAL INJECTION.
156809 04-04
COMPARATIVE STUDY OF THE EFFICACY OF DIAZEPAM, PENTOBARBITAL, AND FENTANYL-DROPERIDOL (THALAMONAL) AGAINST TOXICITY INDUCED BY LOCAL ANESTHETICS IN MICE.
158304 04-05
EFFECTS OF CHLORPROMAZINE AND PENTOBARBITAL ON PATTERN AND NUMBER OF RESPONSES IN EXTINCTION.
162530 04-04
STATE-DEPENDENT LEARNING PRODUCED BY POST TRIAL INTRATHORACIC ADMINISTRATION OF SODIUM PENTOBARBITAL.
163761 04-04
BIOLOGICAL ACTIVITY OF PENTOBARBITAL METABOLITES.
164240 04-02
THE EFFECTS OF PENTOBARBITAL ON EXTINCTION RESPONDING IN RATS. (PH.D. DISSERTATION).
164545 04-04
BEHAVIORAL EFFECTS OF DIAZEPAM, PENTOBARBITAL, METHAMPHETAMINE AND THEIR COMBINATIONS ON DRL 20SEC FOR WATER.
165647 04-04

PENTYLENETETRAZOL
A PERMANENT CHANGE IN CONVULSIVE THRESHOLD IN NORMAL AND BRAIN-DAMAGED RATS WITH REPEATED SMALL DOSES OF PENTYLENETETRAZOL.
152437 04-03
EFFECTS OF TYBAMATE AND PENTYLENETETRAZOL ON SPINAL INTERNEURONS.
162958 04-03
PENTYLENETETRAZOL CONVULSIONS AND BRAIN CATECHOLAMINE TURNOVER RATE IN RATS AND MICE RECEIVING DIPHENYLHYDANTOIN AND BENZODIAZEPINES.
164834 04-03

PENTYLENETETRAZOLE
BENZODIAZEPINES: A STUDY OF THE RELATIONSHIP BETWEEN THEIR EFFECT ON CATECHOLAMINE TURNOVER RATE AND PENTYLENETETRAZOLE CONVULSIONS. (UNPUBLISHED PAPER).
152543 04-03

PERCEPTION
DEPTH PERCEPTION IN RATS FOLLOWING ACUTE OR CHRONIC INJECTIONS OF DL-DELTA9-TETRAHYDROCANNABINOL.
150420 04-04

PERFORMANCE
THE EFFECT OF CHLORPROMAZINE ON DISCRIMINATION PERFORMANCE AND THE PEAK SHIFT.
157072 04-04
ECS PRODUCED DISRUPTION OR FACILITATION OF DISCRIMINATED ACTIVE AVOIDANCE PERFORMANCE IN RATS.
157094 04-03
CREATIVE PERFORMANCE AND THE HALLUCINOGENIC DRUG-INDUCED CREATIVE EXPERIENCE.
162156 04-12
THE EFFECTS OF METHYLPHENIDATE (RITALIN) UPON PERFORMANCE IN THE SUCCESSIVE DISCRIMINATION REVERSAL SITUATION. (PH.D. DISSERTATION).
163119 04-04
IMPAIRMENT OF PERFORMANCE WITH LOW DOSES OF MARIHUANA.
166720 04-14

PERILOUS
BED-WETTERS AND THE PERILOUS PILL.
165567 04-15

PERIODIC
URINARY CYCLIC AMP IN PERIODIC CATATONIA.
160826 04-13

PERIPHERAL
THE EFFECT OF DEXTROAMPHETAMINE ON HABITUATION OF PERIPHERAL VASCULAR RESPONSE IN CHILDREN.
154739 04-14
BLOOD-BRAIN BARRIER TO CARBIDOPA (MK-486) AND RO-4-4602, PERIPHERAL DOPA DECARBOXYLASE INHIBITORS.
155906 04-03
6-AMINODOPAMINE AND 6-HYDROXYDOPAMINE: SIMILAR DEGENERATIVE EFFECTS ON PERIPHERAL ADRENERGIC NERVES. (UNPUBLISHED PAPER).
156107 04-03
PERIPHERAL CHEMICAL SYMPATHECTOMY AND LEARNING.
161718 04-04
UPTAKE AND ACCUMULATION OF 3H-6,7-DIHYDROXYTETRAHYDROISOQUINOLINE BY PERIPHERAL SYMPATHETIC NERVES IN VIVO.
163764 04-03

PERLAPINE
THE EFFECTS OF PERLAPINE ON SLEEP.
163746 04-14

PERMANENT
A PERMANENT CHANGE IN CONVULSIVE THRESHOLD IN NORMAL AND BRAIN-DAMAGED RATS WITH REPEATED SMALL DOSES OF PENTYLENETETRAZOL.
152437 04-03
PERMANENT DEMENTIA IN IDIOPATHIC PARKINSONISM TREATED WITH LEVODOPA.
166033 04-15

PERPHENAZINE
A STUDY OF THE TREATMENT OF REACTIVE AND NEUROTIC DEPRESSIONS BY A COMBINATION OF AMITRIPTYLINE AND PERPHENAZINE.
150255 04-09
THE LONG-TERM EFFECT OF PERPHENAZINE ENANTHATE ON THE RAT BRAIN. SOME METABOLIC AND ANATOMICAL OBSERVATIONS.
150668 04-03

PERSISTENT
TARDIVE DYSKINESIA: A PERSISTENT NEUROLOGICAL SYNDROME ASSOCIATED WITH ANTIPSYCHOTIC DRUG USE.
159348 04-15

PERSON
ANTIDEPRESSANTS AS A PROPHYLAXIS AGAINST DEPRESSION IN THE OBSESSIVE COMPULSIVE PERSON.
163329 04-10

PERSONALITY
EFFECTS OF DRUG-INDUCED BEHAVIOR CHANGES IN HYPERACTIVE CHILDREN ON MATERNAL ATTITUDE AND PERSONALITY. (PH.D. DISSERTATION).
159130 04-14

PERSONNEL
SIGNIFICANCE OF INFORMATION ON PATIENTS AND PERSONNEL EVALUATED AFTER 5000 SERUM LITHIUM VALUES.
166983 04-17

PETHIDINE
EFFECT OF P-CHLOROPHENYLALANINE ON THE INTERACTION BETWEEN PHENELZINE AND PETHIDINE IN CONSCIOUS RABBITS.
160201 04-04

PGO
A MODULATING EFFECT OF CHLORDIAZEPOXIDE ON DRUG-INDUCED PGO SPIKES IN THE CAT.
158293 04-03

PHARMACOELECTROENCEPHALOGRAPHY
CLINICAL AND EEG INVESTIGATIONS WITH CI-579 AND CI-600 (QUANTITATIVE PHARMACOELECTROENCEPHALOGRAPHY AND SLEEP PRINTS).
166733 04-08

PHARMACOKINETIC
LU-5-003 IN ANTIDEPRESSIVE THERAPY. A CONTROLLED CLINICAL TEST WITH SIMULTANEOUS MEASUREMENT OF PHARMACOKINETIC PARAMETERS. PRELIMINARY REPORT.
166982 04-13
PHARMACOKINETIC INTERACTION BETWEEN NEUROLEPTICS AND ANTIDEPRESSANTS: EFFECT ON ORGAN DISTRIBUTION AND METABOLIC PATTERN.
166984 04-03

PHARMACOKINETICS
PHARMACOKINETICS OF THE BETA-ADRENERGIC BLOCKER SOTALOL IN DOGS.
150409 04-03
EFFECTS OF DIETHYLDITHIOCARBAMATE AND ETHANOL ON THE IN VIVO METABOLISM AND PHARMACOKINETICS OF AMPHETAMINE IN THE RAT.
158775 04-03
PHARMACOKINETICS AND METABOLISM OF THE HYPNOTIC NITRAZEPAM.
160467 04-13
COMPARATIVE PHARMACOKINETICS OF OXAZEPAM AND NORTRIPTYLINE AFTER SINGLE ORAL DOSES IN MAN.
160469 04-13
APPLICATION OF QUANTITATIVE GC-MASS SPECTROMETRY TO STUDY OF PHARMACOKINETICS OF AMPHETAMINE AND PHENTERMINE.
163188 04-03

PHARMACOLOGIC
THE EFFECT OF PHARMACOLOGIC TREATMENT ON ASSOCIATION DISTURBANCES IN SCHIZOPHRENIA.
150745 04-08
METHAQUALONE: METABOLIC, KINETIC, AND CLINICAL PHARMACOLOGIC OBSERVATIONS.
151154 04-13
ACUTE RESPONSES OF SCHIZOPHRENIC CHILDREN TO A SEDATIVE AND STIMULATING NEUROLEPTIC: A PHARMACOLOGIC YARDSTICK.
152208 04-08

ATTENUATION OF HYPOTHERMIC RETROGRADE AMNESIA PRODUCED BY PHARMACOLOGIC BLOCKAGE OF BRAIN SEIZURES.
157125 04-04

PHARMACOLOGIC TREATMENT OF AGGRESSION.
159398 04-11

CONTRIBUTING PHARMACOLOGIC FACTORS IN MORPHINE INDUCED FETAL MALFORMATIONS (PH.D. DISSERTATION).
159483 04-03

PHARMACOLOGICAL

DISTRIBUTION OF SOME STRUCTURALLY RELATED PHARMACOLOGICAL AGENTS IN RAT BRAIN.
150584 04-03

CHILEAN MARIHUANA: CHEMICAL COMPOSITION AND PHARMACOLOGICAL ASPECTS.
150650 04-01

BEHAVIOURAL AND PHARMACOLOGICAL STUDIES ON MORPHINE INDUCED EXCITATION OF RATS. POSSIBLE RELATION TO BRAIN CATECHOLAMINES.
150667 04-04

5-HYDROXYTRYPTAMINE SUPERSENSITIVITY AS A NEW THEORY OF HEADACHE AND CENTRAL PAIN: A CLINICAL PHARMACOLOGICAL APPROACH WITH P-CHLOROPHENYLALANINE.
150670 04-15

USEFULNESS OF COMBINED PHARMACOLOGICAL TREATMENT IN ENDOGENOUS DEPRESSIVE SYNDROMES.
150748 04-09

THE POSSIBILITY OF PREDICTING THE EFFECTS OF MARIHUANA IN MAN BY MEANS OF PHARMACOLOGICAL TESTS IN LABORATORY ANIMALS. PRELIMINARY RESULTS.
150778 04-13

PHARMACOLOGICAL TREATMENT OF CEREBRAL ARTERIOSCLEROSIS WITH A NEW DRUG COMBINATION.
151268 04-11

PHARMACOLOGICAL MODIFICATIONS OF THE 6-HYDROXYDOPA INDUCED DEGENERATION OF CENTRAL NORADRENALINE NEURONS.
151350 04-03

PHARMACOLOGICAL STUDIES CONCERNING THE SIMULTANEOUS USE OF ELENIUM AND ETHYL ALCOHOL.
151385 04-03

BIOCHEMICAL AND PHARMACOLOGICAL ASPECTS OF PARKINSONISM.
151683 04-13

PHARMACOLOGICAL THERAPY OF PARKINSONISM WITH LEVODOPA.
152978 04-17

PHARMACOLOGICAL SYMPATHECTOMY USING 6-HYDROXYDOPAMINE.
154960 04-03

GROUP TOXICITY AND INDIVIDUAL TOXICITY -- THE SIZE OF A GROUP AND PHARMACOLOGICAL EFFECTS.
154994 04-05

APOMORPHINE INDUCED AGGRESSION: CHARACTERISTICS, PHARMACOLOGICAL INTERVENTION, AND SITE OF ACTION.
155246 04-03

PHARMACOLOGICAL STUDIES WITH TIPRENOLOL AND PROPRANOLOL IN MAN.
156817 04-13

PHARMACOLOGICAL EVALUATION OF MEDICINAL PLANTS FROM WESTERN SAMOA.
157300 04-17

PHARMACOLOGICAL STUDIES ON THE HYPOTHALAMUS (REPORT 7). CONDITIONING OF HYPOTHALAMIC BEHAVIORAL RESPONSES AND EFFECTS OF PSYCHOTROPIC DRUGS.
158488 04-04

PHARMACOLOGICAL STUDIES ON MECHANISM OF ANTIPARKINSONIAN DRUGS (REPORT 2): ELEVATION OF STRIATAL HOMOVANILLIC ACID CONTENT BY OXOTREMORINE AND ITS MODIFICATION BY ANTICHOLINERGICS.
158501 04-03

BIOCHEMICAL AND PHARMACOLOGICAL STUDY OF 2,5 DIMETHOXY-4-METHYLAMPHETAMINE (DOM, STP) AND ANALOGS. (PH.D. DISSERTATION).
159826 04-03

PHARMACOLOGICAL ACTIVITY OF SOME BENZODIAZEPINES AND THEIR METABOLITES.
160464 04-05

A COMPARISON OF THE PHARMACOLOGICAL ACTIVITY OF DELTA9-TETRAHYDROCANNABINOL AND ITS MONOHYDROXYLATED METABOLITES IN MAN.
163022 04-13

A BEHAVIORAL AND PHARMACOLOGICAL ANALYSIS OF SOME DISCRIMINABLE PROPERTIES OF D-LSD IN RATS.
166728 04-04

PHARMACOLOGICAL ASPECTS OF THE WORKING MECHANISM OF NEUROLEPTICS.
166976 04-13

PHARMACOLOGIST

EXPLORING WITH DRUGS: THE PHARMACOLOGIST IN PSYCHIATRY.
152722 04-13

PHARMACOLOGY

CYTOCHEMISTRY OF SYNAPTIC PHARMACOLOGY. (UNPUBLISHED PAPER).
151429 04-03

PHARMACOLOGY AND BIOCHEMISTRY OF FENFLURAMINE.
152067 04-03

THE CLINICAL PHARMACOLOGY OF IMIPRAMINE: IMPLICATIONS FOR THERAPEUTICS.
156157 04-15

CLINICAL PHARMACOLOGY.
156497 04-17

THE NOOTROPIC APPROACH TO THE PHARMACOLOGY OF THE INTEGRATIVE ACTIVITY OF THE BRAIN.
159396 04-07

PHARMACOLOGY: DRUG ACTIONS AND REACTIONS.
164233 04-17

SOME OBSERVATIONS ON THE PHARMACOLOGY OF THE STRIATUM.
165191 04-13

CLINICAL PHARMACOLOGY OF SLEEP: A CRITICAL REVIEW OF ALL-NIGHT ELECTROENCEPHALOGRAPHIC STUDIES.
166734 04-08

ANIMAL PHARMACOLOGY AND HUMAN PSYCHOPHARMACOLOGY OF 3-METHOXY-4,5 METHYLENEDIOXYPHENYLISOPROPYLAMINE (MMDA).
167041 04-01

PHARMACOTHERAPY

PHARMACOTHERAPY OF TENSION AND ANXIETY.
153794 04-10

RECENT PHARMACOTHERAPY: ANTIDEPRESSANTS.
155071 04-09

RECENT PHARMACOTHERAPY: TRANQUILIZERS.
157035 04-17

PHENACETIN

DETERMINATION OF TOTAL SALICYLATES, PHENACETIN AND/OR TOTAL N-ACETYL-P-AMINOPHENOL, AND CAFFEINE IN BIOLOGICAL SAMPLES AND ANALGESIC FORMULATIONS.
150410 04-01

PHENCYCLIDINE

CATECHOLAMINE CONCENTRATIONS IN DISCRETE AREAS OF THE RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
151629 04-03

NEUROCHEMICAL TERATOLOGY: 5-HYDROXYINDOLE CONCENTRATIONS IN DISCRETE AREAS OF RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
156751 04-03

PHENELZINE

THE MONOAMINE OXIDASE INHIBITOR, PHENELZINE, IN THE TREATMENT OF DEPRESSIVE ANXIETY STATES.
159776 04-09

EFFECT OF P-CHLOROPHENYLALANINE ON THE INTERACTION BETWEEN PHENELZINE AND PETHIDINE IN CONSCIOUS RABBITS.
160201 04-04

PHENELZINE IN PHOBIC ANXIETY: A CONTROLLED TRIAL.
162647 04-09

PHENMETRAZINE

TOXIC ENCEPHALOPATHY FOLLOWING LONG-TERM ADMINISTRATION OF PHENMETRAZINE.
151376 04-15

A NEUROPSYCHOPHARMACOLOGICAL STUDY OF PHENMETRAZINE IN SEVERAL ANIMAL SPECIES.
156811 04-02

PHENOBARBITAL

EFFECTS OF CHLORPROMAZINE AND PHENOBARBITAL ON RAT LIVER AND BRAIN OXIDATIVE N-OXIDASE AND N-DEMETHYLASE ACTIVITIES.
150399 04-03

UREIDE RING SCISSION OF PHENOBARBITAL BY SODIUM BOROHYDRIDE.
150418 04-01

COMPARISON BETWEEN O-AMINOPHENOL GLUCURONIDATION IN LIVER SLICES AND HOMOGENATES FROM CONTROL AND PHENOBARBITAL TREATED WISTAR AND GUNN RATS.
151351 04-03

AFLATOXIN-B1 AND PHENOBARBITAL INDUCIBLE AFLATOXIN-DELTA2 HYDRATION BY RAT LIVER MICROSOMES.
152165 04-03

METABOLISM OF AMPHETAMINE AND BETA,BETA DIFLUOROAMPHETAMINE IN PHENOBARBITAL TREATED RATS.
155493 04-03

DIGITOXIGENIN METABOLISM BY RAT LIVER MICROSOMES AND ITS INDUCTION BY PHENOBARBITAL.
160200 04-03

EFFECT OF PHENOBARBITAL INDUCTION ON GALACTOSE ELIMINATION CAPACITY IN THE RAT.
160799 04-03

PHENOBARBITAL INDUCED FATTY LIVERS IN THE RAT.
163637 04-05

PHENOBARBITONE

THE INFLUENCE OF SOUND PRESSURE LEVEL UPON THE POTENCY OF PHENOBARBITONE SODIUM AND MEPROBAMATE AGAINST AUDIOGENIC SEIZURES IN MICE.
151591 04-04

THE EFFECT OF PHENOBARBITONE ANESTHESIA UPON SOME ORGANIC PHOSPHATES, GLYCOLYTIC METABOLITES AND CITRIC ACID CYCLE ASSOCIATED INTERMEDIATES OF THE RAT BRAIN.
160226 04-03

PHENOLSULFOTRANSFERASE
ACTIVITY OF BRAIN PHENOLSULFOTRANSFERASE FOR THE CATECHOLAMINES AND THEIR METABOLITES. (UNPUBLISHED PAPER).
151657 04-03

PHENOMENA
AVOIDANCE DECREMENT PHENOMENA AND MEASUREMENTS OF DRUG EFFECTS.
152191 04-04

ON-OFF PHENOMENA RELATED TO HIGH PLASMA LEVODOPA.
159552 04-15

PHENOMENOLOGY
THE PHENOMENOLOGY OF MANIA: A NEW LOOK AT SOME OLD PATIENTS.
164719 04-09

PHENOTHIAZINE
PSYCHOPHARMACEUTICALS. II. PHENOTHIAZINE DERIVATIVES.
150775 04-07

PHENOTHIAZINE INDUCED T-WAVE ABNORMALITIES: EFFECTS OF OVERNIGHT FASTING.
152961 04-15

COMPARISON OF AMANTADINE, ORPHENADRINE, AND PLACEBO IN THE CONTROL OF PHENOTHIAZINE INDUCED PARKINSONISM.
153122 04-15

ANTAGONISTIC ACTIVITY OF SOME PHENOTHIAZINE DERIVATIVES AGAINST NEUROHUMORAL TRANSMITTERS.
157139 04-03

HYPERGLYCEMIC MECHANISMS OF CERTAIN PHENOTHIAZINE ANALOGS. (PH.D. DISSERTATION).
159828 04-03

TREATMENT OF PSYCHOSIS SUBSEQUENT TO PHENOTHIAZINE INDUCED AGRANULOCYTOSIS.
161582 04-14

PHENOTHIAZINE EFFECTS IN GOOD PREMORBID SCHIZOPHRENICS DIVIDED INTO PARANOID NONPARANOID STATUS.
162169 04-08

THE EFFECT OF SOME SUBSTANCES OF THE PHENOTHIAZINE SERIES AND OF ALPHA-ADRENERGIC BLOCKING AGENTS ON SPINAL CORD ACTIVITY UNDER CONDITIONS OF DISRUPTION OF INHIBITORY MECHANISMS BY TETANUS TOXIN.
162921 04-03

PREMORBID ASOCIAL ADJUSTMENT AND RESPONSE TO PHENOTHIAZINE TREATMENT AMONG SCHIZOPHRENIC INPATIENTS.
164714 04-08

PHENOTHIAZINES
THE EFFECTS OF THYROID STATE ON THE ACTION AND DISPOSITION OF PHENOTHIAZINES IN RODENTS.
155259 04-03

LONG-ACTING PHENOTHIAZINES IN THE PREVENTION OF RELAPSE OF SCHIZOPHRENIC PATIENTS.
155525 04-08

COMPARATIVE EFFECTS OF SUBSTITUTED PHENOTHIAZINES AND THEIR FREE RADICALS ON (NA+,K+)- ACTIVATED ADENOSINE TRIPHOSPHATASE.
156640 04-03

BINDING OF CYPROHEPTADINE-N-METHYL-14C BY HUMAN BLOOD PLATELETS: INHIBITION BY PHENOTHIAZINES AND TRICYCLIC ANTIDEPRESSANTS.
156647 04-13

DRUG DEFAULTING BY PATIENTS ON LONG-ACTING PHENOTHIAZINES.
162646 04-08

PHENOXYBENZAMINE
INTERACTION OF OXOTREMORINE WITH ATROPINE, CHLORPROMAZINE, CYPROHEPTADINE, IMIPRAMINE AND PHENOXYBENZAMINE ON THE FLEXOR REFLEX OF THE CHRONIC SPINAL DOG.
150318 04-03

PSYCHOSIS IN FABRY DISEASE AND TREATMENT WITH PHENOXYBENZAMINE.
159775 04-07

PHENTERMINE
APPLICATION OF QUANTITATIVE GC-MASS SPECTROMETRY TO STUDY OF PHARMACOKINETICS OF AMPHETAMINE AND PHENTERMINE.
163188 04-03

PHENYLETHANOL
INHIBITION OF URIDINE INCORPORATION INTO RNA IN MAMMALIAN CELLS BY AGENTS AFFECTING THE PROPERTIES OF THE CELL MEMBRANE: CHLORPROMAZINE, DIPYRIDAMOLE AND PHENYLETHANOL.
166700 04-03

PHENYLHYDANTOIN
IDENTIFICATION OF 5-(3,4 DIHYDROXYPHENYL)-5 PHENYLHYDANTOIN AS A METABOLITE OF 5,5 DIPHENYLHYDANTOIN (PHENYTOIN) IN RATS AND MAN.
156650 04-06

PHENYLKETONURIA
POSSIBLE SENSITIVITY TO MEPERIDINE IN PHENYLKETONURIA.
160147 04-15

PHENYTOIN
IDENTIFICATION OF 5-(3,4 DIHYDROXYPHENYL)-5 PHENYLHYDANTOIN AS A METABOLITE OF 5,5 DIPHENYLHYDANTOIN (PHENYTOIN) IN RATS AND MAN.
156650 04-06

PHLEBOCLYSIS
RESULTS OBTAINED FROM 51 CASES OF DEPRESSIVE SYNDROMES TREATED WITH DESIPRAMINE BY SLOW PHLEBOCLYSIS.
151264 04-09

PHOBIAS
DECLINING-DOSE DRUG DESENSITIZATION FOR PHOBIAS: CLINICAL AND PSYCHOPHYSIOLOGICAL STUDIES.
153607 04-10

CONTROLLED EVALUATION OF INTRAVENOUS DRUGS IN THE SPECIFIC DESENSITIZATION OF PHOBIAS.
153609 04-10

PHOBIC
BEHAVIOUR THERAPY VERSUS DRUG THERAPY IN THE TREATMENT OF PHOBIC NEUROSIS.
153606 04-10

PHENELZINE IN PHOBIC ANXIETY: A CONTROLLED TRIAL.
162647 04-09

PHOSPHATES
THE EFFECT OF PHENOBARBITONE ANESTHESIA UPON SOME ORGANIC PHOSPHATES, GLYCOLYTIC METABOLITES AND CITRIC ACID CYCLE ASSOCIATED INTERMEDIATES OF THE RAT BRAIN.
160226 04-03

PHOSPHATIDYLCHOLINE
EFFECT OF D-AMPHETAMINE ON THE TURNOVER, SYNTHESIS AND METABOLISM OF BRAIN PHOSPHATIDYLCHOLINE.
166697 04-03

PHOSPHORYLASE
GLYCOGEN CONTENT AND PHOSPHORYLASE ACTIVITY IN LIVER AND SKELETAL MUSCLE OF NORMAL AND CHRONICALLY MORPHINIZED RATS.
156638 04-03

PHOSPHORYLATION
THE EFFECT OF CHOLERA TOXIN ON THE PHOSPHORYLATION OF PROTEIN IN EPITHELIAL CELLS AND THEIR BRUSH BORDERS.
156879 04-03

PHOTICALLY
EFFECTS OF L-TRYPTOPHAN, L-3,4,DIHYDROXYPHENYLALANINE AND TRANYLCYPROMINE ON THE ELECTROENCEPHALOGRAM AND ON PHOTICALLY INDUCED EPILEPSY IN THE BABOON, PAPIO-PAPIO.
152044 04-03

PHOTOPALPEBRAL
THE EFFECT OF MEDAZEPAM (S-804) ON THE PHOTOPALPEBRAL REFLEX.
166941 04-13

PHOTOSENSITISATION
PHOTOSENSITISATION DUE TO DRUGS.
163280 04-17

PHYSICAL
THE INFLUENCE OF L-DOPA ON PHYSICAL TREATMENT OF PARKINSONISM.
151694 04-11

INFLUENCE OF 5,6-DIHYDROXYTRYPTAMINE ON MORPHINE TOLERANCE AND PHYSICAL DEPENDENCE.
156822 04-03

ATTEMPT TO EVALUATE THE PHYSICAL DEPENDENCE LIABILITY OF PSYCHOTROPIC DRUGS IN MICE (2).
158513 04-03

PHYSICIAN
PHYSICIAN CHARACTERISTICS AND ATTITUDES TOWARD LEGITIMATE USE OF PSYCHOTHERAPEUTIC DRUGS.
158645 04-17

PHYSICOCHEMICAL
PHYSICOCHEMICAL STUDIES ON A NEW POTENT CNS DEPRESSANT, 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA).
155553 04-01

PHYSIOLOGICAL
FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION.
150424 04-03

PHYSIOLOGICAL AND BEHAVIORAL EFFECTS OF PARA-CHLOROPHENYLALANINE IN THE RAT.
157143 04-03

PHYSOSTIGMINE
PHYSOSTIGMINE IN TARDIVE DYSKINESIA IN THE ELDERLY.
166364 04-11

PHYTOCHEMICAL
PHYTOCHEMICAL INVESTIGATION OF VIROLA-PERUVIANA, A NEW HALLUCINOGENIC PLANT.
163189 04-12

PIF
FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION.
150424 04-03

PIGEON
CHRONIC INTRAVENOUS DRUG ADMINISTRATION IN THE PIGEON.
156827 04-06

PILL
BED-WETTERS AND THE PERILOUS PILL.
165567 04-15

PILOCARPINE
POSSIBLE MECHANISM OF PILOCARPINE POTENTIATION OF HEXOBARBITAL HYPNOSIS IN MICE.
158477 04-03

PILOT
A LONG-TERM PILOT STUDY OF PIPOTHIAZINE PALMITATE IN CHRONIC SCHIZOPHRENIA.
150832 04-08

PIMOZIDE
COMPARATIVE TRIAL OF IMICLOPAZINE, TPN-12 PIMOZIDE AND TRIFLUPERIDOL IN SCHIZOPHRENIA.
156563 04-08
TREATMENT OF CHRONIC NEUROSIS BY THE USE OF PIMOZIDE.
157029 04-11
THE EFFECTS OF PIMOZIDE ON DOMINANT SUBORDINATE BEHAVIOUR IN WISTAR RATS COMPETING FOR FOOD.
163758 04-04

PINEAL
STIMULATION OF SEROTONIN N-ACETYLTRANSFERASE IN PINEAL ORGAN CULTURE BY DRUGS. (UNPUBLISHED PAPER).
154364 04-03
ROLE OF BETA-ADRENERGIC RECEPTOR IN THE CONTROL OF SEROTONIN N-ACETYLTRANSFERASE IN RAT PINEAL. (UNPUBLISHED PAPER).
154368 04-03
THE REGULATION OF PINEAL SEROTONIN BY A BETA ADRENERGIC RECEPTOR.
159369 04-03
THE ACTIVATION OF PINEAL HYDROXYINDOLE-O-METHYLTRANSFERASE BY PSYCHOTOMIMETIC DRUGS.
165999 04-03

PINOCYTOSIS
EFFECT OF N6O2-DIBUTYRYL CYCLIC 3,5 ADENOSINE MONOPHOSPHATE ON THE PINOCYTOSIS OF BRAIN CAPILLARIES OF MICE.
162960 04-03

PIPERACETAZINE
PIPERACETAZINE IN CHRONIC MENTAL PATIENTS: CLINICAL OBSERVATIONS AND NEW URINE COLOR TEST.
150831 04-07
PIPERACETAZINE AND CHLORPROMAZINE: A COMPARISON.
152900 04-08
COMPARATIVE EVALUATION OF INJECTIBLE CHLORPROMAZINE AND PIPERACETAZINE.
163332 04-08
PIPERACETAZINE INJECTABLE: A CONTROLLED STUDY.
165803 04-08

PIPOTHIAZINE
A LONG-TERM PILOT STUDY OF PIPOTHIAZINE PALMITATE IN CHRONIC SCHIZOPHRENIA.
150832 04-08

PIPRADROL
THE RE-EVALUATION OF A CENTRAL NERVOUS SYSTEM STIMULANT: PIPRADROL HYDROCHLORIDE.
152211 04-09

PIRACETAM
EFFECTS OF PIRACETAM (SKF-38462) ON ACQUISITION, RETENTION, AND ACTIVITY IN THE GOLDFISH.
162276 04-04

PITUITARY
PITUITARY AND ANTIDEPRESSANT RESPONSES OF WOMEN TO TRH.
155254 04-13
THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. II. PITUITARY THYROID RESPONSES.
157344 04-13
INHIBITION OF MORPHINE INDUCED PITUITARY ADRENAL ACTIVATION BY DEXAMETHASONE IN THE FEMALE RAT (37506).
162049 04-03

PLACEBO
COMPARISON OF AMANTADINE, ORPHENADRINE, AND PLACEBO IN THE CONTROL OF PHENOTHIAZINE INDUCED PARKINSONISM.
153122 04-15
A DOUBLE-BLIND COMPARISON OF HALOPERIDOL ORAL CONCENTRATE, HALOPERIDOL SOLUTABS AND PLACEBO IN THE TREATMENT OF CHRONIC SCHIZOPHRENIA.
156939 04-08
PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09
THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: I. METHODOLOGY AND THE EFFECTS OF PLACEBO.
166725 04-14

PLAN
THE RESEARCH PLAN REPORT: REVISED FORM AND INFORMATION RETRIEVAL SYSTEM.
155277 04-17

PLANNING
THE EFFECT OF A STIMULANT DRUG (METHAMPHETAMINE) ON COGNITIVE IMPULSIVITY, PLANNING, NEW LEARNING, AND SOCIAL BEHAVIOR IN HYPERACTIVE CHILDREN. (PH.D. DISSERTATION).
149717 04-14

PLANT
PHYTOCHEMICAL INVESTIGATION OF VIROLA-PERUVIANA, A NEW HALLUCINOGENIC PLANT.
163189 04-12

PLANTS
PHARMACOLOGICAL EVALUATION OF MEDICINAL PLANTS FROM WESTERN SAMOA.
157300 04-17

PLASMA
EFFECT OF L-DOPA ON PLASMA GROWTH HORMONE AND INSULIN.
151693 04-13
PLASMA TESTOSTERONE CONTENT OF MALE PATIENTS WITH PARKINSONS DISEASE DURING L-DOPA TREATMENT WITH OR WITHOUT DOPADECARBOXYLASE INHIBITOR.
151695 04-15
PLASMA PROTEIN BINDING OF 7-HYDROXY-DELTA1-TETRAHYDROCANNABINOL: AN ACTIVE DELTA1-TETRAHYDROCANNABINOL METABOLITE.
156799 04-03
EFFECT OF PROPRANOLOL ON FREE FATTY ACIDS OF MICE PLASMA DURING A PASSIVE AVOIDANCE TEST.
157155 04-03
QUANTITATION OF DELTA1-TETRAHYDROCANNABINOL IN PLASMA FROM CANNABIS SMOKERS.
158770 04-16
UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE.
158771 04-03
ON-OFF PHENOMENA RELATED TO HIGH PLASMA LEVODOPA.
159552 04-15
THE PREDICTION OF BRAIN LITHIUM CONCENTRATIONS FROM PLASMA OR ERYTHROCYTE MEASURES.
161731 04-03
DISPLACEMENT OF THIOPENTAL FROM PLASMA PROTEINS BY NONSTEROIDAL ANTIINFLAMMATORY AGENTS.
163635 04-05
EFFECTS OF MODE OF MANAGEMENT ON PLASMA CHLORPROMAZINE IN PSYCHIATRIC PATIENTS.
166721 04-08

PLATELETS
ACCUMULATION, STORAGE AND RELEASE OF ADRENERGIC NEURON BLOCKING AGENTS AND RELATED DRUGS BY HUMAN PLATELETS.
150316 04-03
BINDING OF CYPROHEPTADINE-N-METHYL-14C BY HUMAN BLOOD PLATELETS: INHIBITION BY PHENOTHIAZINES AND TRICYCLIC ANTIDEPRESSANTS.
156647 04-13
EFFECT OF BENZODIAZEPINES ON UPTAKE AND EFFLUX OF SEROTONIN IN HUMAN BLOOD PLATELETS IN VITRO.
160473 04-13
INHIBITORY EFFECT OF GEROVITAL-H3 AND PROCAINE ON MONOAMINE OXIDASE IN RAT BRAIN, LIVER, HEART AND PLATELETS.
166386 04-11

PLEXUS
MORPHINE TOLERANCE AND SUPERSENSITIVITY TO 5-HYDROXYTRYPTAMINE IN THE MYENTERIC PLEXUS OF THE GUINEA-PIG.
157318 04-03

POISONING
TASTE AVERSIONS AND ACUTE METHYLMERCURY POISONING IN RATS.
155341 04-05
POISONING BY THE BARBITURATES, AND A VARIETY OF HYPNOTICS AND SEDATIVES.
155753 04-15
ACUTE CHLORPROMAZINE POISONING.
156551 04-15
OVERDOSAGE AND/OR POISONING -- THE INFORMATION GAP.
156641 04-15
CLINICAL TOXICOLOGY VII. POISONING BY SALICYLATES, PARACETAMOL, TRICYCLIC ANTIDEPRESSANTS AND A MISCELLANY OF DRUGS.
159588 04-15

ACCIDENTAL INGESTION: METHADONE, PROPOXYPHENE (DARVON), OR DIPHENOXYLATE (LOMOTIL) POISONING.
161788 04-15

USE OF ANIMAL MODELS FOR COMPARATIVE STUDIES OF LEAD POISONING.
166737 04-05

POLYDIPSIA
LITHIUM INDUCED POLYDIPSIA AND POLYURIA: MECHANISM OF ACTION
166071 04-13

POLYMER
LONG-ACTING MORPHINE ANTAGONISTS -- POLYMER BLENDS.
160750 04-03

POLYPHARMACY
POLYPHARMACY IN PSYCHIATRY: EMPIRICISM, EFFICACY, AND RATIONALE.
153796 04-17

POLYSYNAPTIC
EFFECT OF PARA-METHOXYPHENYLETHYLAMINE ON POLYSYNAPTIC PATHWAYS AND ON INTERNEURONS OF THE CAT LUMBAR SPINAL CORD.
157112 04-03

POLYURIA
PRIMARY POLYURIA ACCOMPANIES HUNGER ELICITED BY INTRAHYPOTHALAMIC INJECTION OF NORADRENALINE.
156815 04-03

ADENYL CYCLASE ACTIVITY IN KIDNEYS OF RATS WITH LITHIUM INDUCED POLYURIA.
163320 04-03

LITHIUM INDUCED POLYDIPSIA AND POLYURIA: MECHANISM OF ACTION
166071 04-13

PONDERAL
FENFLURAMINE (PONDERAL) IN TREATMENT OF ADIPOSITY CAUSED BY NEUROLEPTICS.
166986 04-09

PONTILE
5-HYDROXYTRYPTAMINE METABOLISM, SUPERIOR-COLLICULUS, AND GROOMING BEHAVIOR IN CATS WITH PONTILE LESIONS.
166157 04-03

POPPY
QUANTITATIVE DETERMINATION OF MORPHINE IN POPPY CAPSULES BY DIFFERENTIAL SPECTROPHOTOMETRY.
150416 04-01

ON ALKALOIDS. XXV. MINOR ALKALOIDS OF POPPY CAPSULES.
167017 04-01

PORTAL
SEROTONIN METABOLISM IN RAT BRAIN AFTER SURGICAL DIVERSION OF THE PORTAL VENOUS CIRCULATION.
159449 04-03

POSITIONAL
EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING.
158000 04-04

POSITIVE
POSITIVE OUTCOME IN PSYCHIATRIC CRISIS: EVALUATION OF THIORIDAZINE CONCENTRATE IN AN INTENSIVE, SHORT-TERM PSYCHIATRIC PROGRAM.
155793 04-10

POST
STATE-DEPENDENT LEARNING PRODUCED BY POST TRIAL INTRATHORACIC ADMINISTRATION OF SODIUM PENTOBARBITAL.
163761 04-04

POSTNEUROLEPTIC
PRESENT DAY POSSIBILITIES OF RELIEVING POSTNEUROLEPTIC EXTRAPYRAMIDAL SYMPTOMS.
156562 04-11

POTASSIUM
ANTAGONISM BY PROTRIPTYLINE AND DESIPRAMINE OF THE RESPONSE OF THE VAS-DEFERENS OF THE RAT TO NOREPINEPHRINE, ACETYLCHOLINE AND POTASSIUM.
157110 04-03

POTENCY
DOSAGE CONTROL OF DRUGS WITH LETHAL POTENCY FOR UNIVERSITY LEVEL PATIENTS.
150579 04-15

THE INFLUENCE OF SOUND PRESSURE LEVEL UPON THE POTENCY OF PHENOBARBITONE SODIUM AND MEPROBAMATE AGAINST AUDIOGENIC SEIZURES IN MICE.
151591 04-04

SOME CORRELATES OF MARIHUANA SELF-ADMINISTRATION IN MAN: A STUDY OF TITRATION OF INTAKE AS A FUNCTION OF DRUG POTENCY.
153100 04-13

DOPAMINE ANTAGONISM AND ANTISCHIZOPHRENIC POTENCY OF NEUROLEPTIC DRUGS.
159450 04-08

POTENT
BEHAVIORAL PROFILE OF A POTENT NEW PSYCHOTOXIC COMPOUND.
150294 04-07

PHYSICOCHEMICAL STUDIES ON A NEW POTENT CNS DEPRESSANT, 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA).
155553 04-01

THE EFFECTS OF CINANSERIN, A POTENT SEROTONIN ANTAGONIST, ON THE ACQUISITION OF A RUNNING RESPONSE IN THE RAT.
156808 04-04

POTENTIAL
EFFECT OF TRICYCLIC ANTIDEPRESSANTS ON THE SOMATOSENSORY EVOKED POTENTIAL IN MAN.
150349 04-13

DRUG-INDUCED ATTENUATION OF ALCOHOL CONSUMPTION: A REVIEW AND EVALUATION OF CLAIMED, POTENTIAL OR CURRENT THERAPIES.
154690 04-11

SEVEN-MEMBERED HETEROCYCLICS OF MEDICINAL POTENTIAL.
156878 04-01

SKIN POTENTIAL ORIENTING RESPONSES IN DRUG TREATED AND NONDRUG TREATED DEPRESSED INPATIENTS.
159395 04-09

INFLUENCE OF QUIPAZINE, A POTENTIAL ANTIPARKINSONIAN AGENT ON THE UPTAKE OF 3H-DOPAMINE AND 3H-SEROTONIN INTO RAT STRIATAL TISSUE IN VITRO.
163793 04-03

POTENTIATING
POTENTIATING MECHANISM BY OUABAIN ON CONTRACTIONS OF GUINEA-PIG VAS-DEFERENS TO 5-HT AND OTHER AMINES.
158475 04-03

POTENTIATING EFFECT OF CHLORPROMAZINE ON GLYCERYL GUAIACOLATE ETHER INDUCED HEMOLYSIS OF RAT, DOG AND HUMAN BLOOD IN VITRO.
166790 04-13

POTENTIATION
POTENTIATION OF THE EFFECTS OF CHLORPROMAZINE ON EXPLORATION IN THE RAT BY A PRIOR EXPERIENCE OF THE DRUG.
150671 04-04

POSSIBLE MECHANISM OF PILOCARPINE POTENTIATION OF HEXOBARBITAL HYPNOSIS IN MICE.
158477 04-03

POWER
CONSCIOUSNESS, POWER AND DRUG EFFECTS.
150615 04-17

PRACTITIONERS
PRESCRIPTION OF PSYCHOTROPIC DRUGS BY GENERAL PRACTITIONERS: 1. GENERAL.
150791 04-17

PRESCRIPTION OF PSYCHOTROPIC DRUGS BY GENERAL PRACTITIONERS: 2. ANTIDEPRESSANTS.
153264 04-17

PRACTOLOL
SUICIDAL ATTEMPT WITH PRACTOLOL.
155040 04-15

THE EFFECT OF DL-PROPRANOLOL, D-PROPRANOLOL AND PRACTOLOL ON THE HYPERACTIVITY INDUCED IN RATS BY PROLONGED ISOLATION.
157040 04-04

A COMPARISON OF THE EFFECTS OF SOTALOL AND OF THE ISOMERS OF PRACTOLOL ON ADRENERGIC NERVOUS ACTIVITY.
166789 04-03

PRECURSORS
MONOAMINE PRECURSORS AND INDOLEAMINE METABOLISM IN DEPRESSION.
158500 04-09

THE INFLUENCE OF PROBENECID ON THE METABOLISM OF SEROTONIN, DOPAMINE AND THEIR PRECURSORS IN MAN.
166726 04-13

PREDICTING
THE POSSIBILITY OF PREDICTING THE EFFECTS OF MARIHUANA IN MAN BY MEANS OF PHARMACOLOGICAL TESTS IN LABORATORY ANIMALS. PRELIMINARY RESULTS.
150778 04-13

PREDICTION
THE PREDICTION OF BRAIN LITHIUM CONCENTRATIONS FROM PLASMA OR ERYTHROCYTE MEASURES.
161731 04-03

CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE: STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER).
166960 04-09

PREDICTION OF THERAPEUTIC USES OF PSYCHOTHERAPEUTIC DRUGS FROM EXPERIENCES WITH NORMAL VOLUNTEERS.
167106 04-14

PREDICTIONS
CERTAIN PREDICTIONS ON THE EFFECTIVENESS OF L-DOPA ON PARKINSONISM.
156778 04-11

PREDICTORS
PREDICTORS OF RESPONSE TO BENZODIAZEPINES IN ANXIOUS OUTPATIENTS.
158286 04-14

PREDNISONE
ADDICTION TO PREDNISONE.
151049 04-15

PREEXPOSURE
THE EFFECTS OF SCOPOLAMINE ON PREEXPOSURE TO A LEARNING APPARATUS.
151224 04-04

PREFERENCE
MEASUREMENT OF ANALGESIA USING A SPATIAL PREFERENCE TEST IN THE RAT.
153569 04-04

ETHANOL AND ACETALDEHYDE METABOLISM IN RAT STRAINS GENETICALLY SELECTED FOR THEIR ETHANOL PREFERENCE.
160542 04-03

PREFERRING
INTAKE OF DIAZEPAM AND HASHISH BY ALCOHOL PREFERRING RATS DEPRIVED OF ALCOHOL.
153571 04-03

PREGANGLIONIC
NEUROMUSCULAR BLOCKING DRUGS AND THE HEART RATE RESPONSE TO DIRECT PREGANGLIONIC STIMULATION OF THE SYMPATHETICS AND PARASYMPATHETICS IN THE CAT.
153171 04-03

PREGNANCY
LITHIUM AND PREGNANCY -- I, REPORT FROM THE REGISTER OF LITHIUM BABIES.
155041 04-15

LITHIUM AND PREGNANCY - II, HAZARDS TO WOMEN GIVEN LITHIUM DURING PREGNANCY AND DELIVERY.
155042 04-15

LITHIUM AND PREGNANCY - III, LITHIUM INGESTION BY CHILDREN BREAST-FED BY WOMEN ON LITHIUM TREATMENT.
155043 04-15

THE EFFECT OF IMIPRAMINE ADMINISTERED BEFORE AND DURING PREGNANCY ON LITTER SIZE IN THE RAT.
163772 04-03

PREGNANT
DRUG INTERACTION -- EFFECT OF CHLORPROMAZINE ON THE DISPOSITION OF 8-14C-MESCALINE IN FETAL AND MATERNAL BRAIN AND LIVER IN PREGNANT MOUSE.
155221 04-03

PREGNYL
HUMAN CHORIONIC GONADOTROPHIN (PREGNYL) IN THE TREATMENT OF NOCTURNAL ENURESIS.
158013 04-13

PREMORBID
SKIN CONDUCTANCE BASAL LEVEL AND REACTIVITY IN SCHIZOPHRENIA AS A FUNCTION OF CHRONICITY, PREMORBID ADJUSTMENT, DIAGNOSIS, AND MEDICATION.
154170 04-08

PHENOTHIAZINE EFFECTS IN GOOD PREMORBID SCHIZOPHRENICS DIVIDED INTO PARANOID NONPARANOID STATUS.
162169 04-08

PREMORBID ASOCIAL ADJUSTMENT AND RESPONSE TO PHENOTHIAZINE TREATMENT AMONG SCHIZOPHRENIC INPATIENTS.
164714 04-08

PREOPERATIVE
MEASUREMENT AND CONTROL OF PREOPERATIVE ANXIETY.
153197 04-14

PRESCHOOL
RESPONSE TO TRIIODOTHYRONINE AND DEXTROAMPHETAMINE: A STUDY OF PRESCHOOL SCHIZOPHRENIC CHILDREN.
150432 04-08

PRESCRIBING
HAZARDS IMPLICIT IN PRESCRIBING PSYCHOACTIVE DRUGS.
158625 04-17

PRESCRIPTION
PRESCRIPTION OF PSYCHOTROPIC DRUGS BY GENERAL PRACTITIONERS: 1. GENERAL.
150791 04-17

PRESCRIPTION OF PSYCHOTROPIC DRUGS BY GENERAL PRACTITIONERS: 2. ANTIDEPRESSANTS.
153264 04-17

NO PRESCRIPTION PADS FOR SOCIAL WORKERS.
161630 04-17

PRESENILE
INFLUENCE OF TIZERTSINE AND TRIFLUOPERAZINE ON MOBILITY OF MAIN NERVOUS PROCESSES IN PATIENTS WITH PRESENILE PSYCHOSIS.
156588 04-11

PRESSING
EFFECTS OF D-AMPHETAMINE ON SCHEDULE CONTROLLED KEY PRESSING AND DRINKING IN THE CHIMPANZEE.
157119 04-04

PRESSOR
AUGMENTATION OF PRESSOR RESPONSE TO CATECHOLAMINE BY N,N DIMETHYLETHYLENEDIAMINES.
158476 04-03

EFFECT OF CHEMICAL SYMPATHECTOMY ON PRESSOR RESPONSES TO NOREPINEPHRINE, ANGIOTENSIN AND TYRAMINE.
163021 04-03

PRESSURE
THE INFLUENCE OF SOUND PRESSURE LEVEL UPON THE POTENCY OF PHENOBARBITONE SODIUM AND MEPROBAMATE AGAINST AUDIOGENIC SEIZURES IN MICE.
151591 04-04

PATTERN OF SYMPATHETIC NERVOUS SYSTEM (SNS) DISCHARGE AND THE BLOOD PRESSURE RESPONSE TO FOOTSHOCK IN THE RAT.
153202 04-03

PRETREATED
MORPHINE INDUCED SACCHARIN AVERSION IN ALPHA-METHYLTYROSINE PRETREATED RATS.
162279 04-03

DECREASED ANTINOCICEPTIVE ACTIVITY OF MORPHINE IN RATS PRETREATED INTRAVENTRICULARLY WITH 5,6 DIHYDROXYTRYPTAMINE, A LONG-LASTING SELECTIVE DEPLETOR OF BRAIN SEROTONIN.
163775 04-03

PRETREATMENT
THE INTERACTION OF DELTA9-TETRAHYDROCANNABINOL PRETREATMENT WITH VARIOUS SEDATIVE HYPNOTIC DRUGS.
150302 04-04

ENTRY AND EXIT FROM TREATMENT: SOME CONSEQUENCES OF PRETREATMENT EXPERIENCE FOR TREATMENT RESPONSE.
160218 04-17

PREVENT
ALPHA-METHYLTYROSINE TO PREVENT SELF-ADMINISTRATION OF MORPHINE AND AMPHETAMINE.
152213 04-04

DOES LITHIUM PREVENT DEPRESSIONS BY SUPPRESSING MANIAS?
161387 04-09

PREVENTION
EXTINCTION OF AVOIDANCE IN RATS: THE EFFECTS OF CHLORPROMAZINE AND METHYLPHENIDATE ADMINISTERED IN CONJUNCTION WITH FLOODING RESPONSE (PREVENTION).
152525 04-04

MULTIMODALITY APPROACHES TO THE TREATMENT AND PREVENTION OF OPIATE ADDICTION.
155241 04-17

LONG-ACTING PHENOTHIAZINES IN THE PREVENTION OF RELAPSE OF SCHIZOPHRENIC PATIENTS.
155525 04-08

LITHIUM CARBONATE AND IMIPRAMINE IN PREVENTION OF AFFECTIVE EPISODES.
159778 04-09

PREVENTION OF RESERPINE DEPLETION OF THE CATECHOLAMINE RESERVE WITH FLUORACIZINE.
162922 04-03

PREY
EFFECTS OF CHOLINERGIC DRUGS ON PREY KILLING BY RODENTS.
157136 04-04

PRIMARY
PRIMARY POLYURIA ACCOMPANIES HUNGER ELICITED BY INTRAHYPOTHALAMIC INJECTION OF NORADRENALINE.
156815 04-03

PRIMIDONE
TRANSPLACENTAL PASSAGE OF PRIMIDONE.
152137 04-15

PRINTS
CLINICAL AND EEG INVESTIGATIONS WITH CI-579 AND CI-600 (QUANTITATIVE PHARMACOELECTROENCEPHALOGRAPHY AND SLEEP PRINTS).
166733 04-08

PRISONERS
NEUROLEPTIC TREATMENT OF PRISONERS WITH MENTAL ABNORMALITIES.
150749 04-11

EXPERIMENTS BEHIND BARS: DOCTORS, DRUG COMPANIES, AND PRISONERS.
156835 04-07

THE LONG-TERM USE OF LITHIUM IN AGGRESSIVE PRISONERS.
161581 04-14

PROBENECID
ESTIMATION OF BRAIN AMINE METABOLISM IN AFFECTIVE ILLNESS: CEREBROSPINAL FLUID STUDIES UTILIZING PROBENECID.
164871 04-11

THE INFLUENCE OF PROBENECID ON THE METABOLISM OF SEROTONIN, DOPAMINE AND THEIR PRECURSORS IN MAN.
166726 04-13

PROBLEM
THE PROBLEM OF CLINICAL ACTIVITY OF LONG-ACTING NEUROLEPTICS.
153278 04-10

TREATING PROBLEM CHILDREN WITH STIMULANT DRUGS.
158175 04-14

PROBLEMS
CROSS-CULTURAL OPPORTUNITIES AND PROBLEMS IN STUDIES OF CHRONIC HASHISH USERS IN GREECE. 155264 04-15
PROBLEMS AND PROFITS OF CROSS-NATIONAL COLLABORATIVE STUDIES. 155265 04-17
PROBLEMS AND EXPERIENCES WITH TRIALS OUTSIDE THE UNITED-STATES: THE TIME LAG IN NEW DRUG AVAILABILITY. 155274 04-17

PROCAINE
POSSIBLE RATIONALE FOR PROCAINE (GEROVITAL-H3) THERAPY IN GERIATRICS: INHIBITION OF MONOAMINE OXIDASE. 160951 04-11
INHIBITORY EFFECT OF GEROVITAL-H3 AND PROCAINE ON MONOAMINE OXIDASE IN RAT BRAIN, LIVER, HEART AND PLATELETS. 166386 04-11

PROCEDURE
EFFECTS OF BEHAVIORALLY ACTIVE DRUGS IN A CONFLICT PUNISHMENT PROCEDURE IN RATS. 158281 04-04
AN ASSAY PROCEDURE FOR TRYPTAMINE IN BRAIN AND SPINAL CORD USING ITS 3H DANSYL DERIVATIVE. 161380 04-06

PROCEDURES
REDUCTION OF HYPERACTIVE BEHAVIOR BY CONDITIONING PROCEDURES ALONE AND COMBINED WITH METHYLPHENIDATE (RITALIN). 161049 04-14

PROCEEDINGS
ANNUAL ECDEU MEETING -- ABRIDGED PROCEEDINGS. 166874 04-07

PRODUCTS
METABOLISM OF AMPHETAMINES. IDENTIFICATION OF N-OXYGENATED PRODUCTS BY GAS CHROMATOGRAPHY AND MASS SPECTROMETRY. 165998 04-06

PROFILE
BEHAVIORAL PROFILE OF A POTENT NEW PSYCHOTOXIC COMPOUND. 150294 04-07

PROFITS
PROBLEMS AND PROFITS OF CROSS-NATIONAL COLLABORATIVE STUDIES. 155265 04-17

PROGESTERONE
EFFECTS OF ESTROGEN AND PROGESTERONE ON BRAIN MONOAMINES: INTERACTIONS WITH PSYCHOTROPIC DRUGS. 152045 04-03

PROGNOSTICATOR
THE 24-HOUR SERUM LITHIUM LEVEL AS A PROGNOSTICATOR OF DOSAGE REQUIREMENTS. 152911 04-16

PROGRAM
RECENT RESEARCH ON OPIATE ADDICTION -- REVIEW OF A NATIONAL PROGRAM. 155240 04-17
GENETIC PROGRAM OF BRAIN BIOGENIC AMINES AND AGGRESSIVE BEHAVIOR. 155244 04-03
POSITIVE OUTCOME IN PSYCHIATRIC CRISIS: EVALUATION OF THIORIDAZINE CONCENTRATE IN AN INTENSIVE, SHORT-TERM PSYCHIATRIC PROGRAM. 155793 04-10

PROGRESSIVE
PROGRESSIVE CEREBELLAR DYSSYNERGIA: THE USE OF DIAZEPAM. 164699 04-11

PROJECTION
A PROJECTION OF THE NUCLEUS LOCUS-COERULEUS TO THE HIPPOCAMPUS OF THE RAT. (UNPUBLISHED PAPER). 164836 04-03

PROJECTS
RESUMES OF RESEARCH PROJECTS IN PSYCHOPHARMACOLOGY. 166875 04-17

PROLACTIN
FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION. 150424 04-03
L-DOPA SUPPRESSION OF TRH STIMULATED PROLACTIN RELEASE IN MAN. 156772 04-13
CHILDHOOD ACROMEGALY: SUCCESSFUL THERAPY WITH CONVENTIONAL RADIATION AND EFFECTS OF CHLORPROMAZINE ON GROWTH HORMONE AND PROLACTIN SECRETION. 160653 04-13

PROLIXIN
OUTPATIENT MANAGEMENT OF CHRONIC SCHIZOPHRENICS WITH FLUPHENAZINE ENANTHATE (PROLIXIN ENANTHATE): A CLINICAL EVALUATION. 164217 04-08

PROLONGED
THE EFFECT OF PROLONGED LITHIUM ADMINISTRATION ON ACTIVITY, REACTIVITY, AND ENDURANCE IN THE RAT. 150324 04-04
THE EFFECT OF DL-PROPRANOLOL, D-PROPRANOLOL AND PRACTOLOL ON THE HYPERACTIVITY INDUCED IN RATS BY PROLONGED ISOLATION. 157040 04-04
LABOR DIVISION OF RATS UNDER THE INFLUENCE OF PROLONGED ADMINISTRATION OF (-)DELTA9-TRANS-TETRAHYDROCANNABINOL. 157181 04-04

PROPHYLACTIC
PROPHYLACTIC TREATMENT FOR MANIC-DEPRESSIVES. 151722 04-09
LITHIUM AS A PROPHYLACTIC AGENT IN RECURRING AFFECTIVE DISORDERS. 156416 04-09

PROPHYLAXIS
LITERATURE REVIEW AND PROPOSAL FOR LITHIUM PROPHYLAXIS STUDIES. 150438 04-09
ANTIDEPRESSANTS AS A PROPHYLAXIS AGAINST DEPRESSION IN THE OBSESSIVE COMPULSIVE PERSON. 163329 04-10

PROPOSAL
LITERATURE REVIEW AND PROPOSAL FOR LITHIUM PROPHYLAXIS STUDIES. 150438 04-09

PROPOXYPHENE
ACCIDENTAL INGESTION: METHADONE, PROPOXYPHENE (DARVON), OR DIPHENOXYLATE (LOMOTIL) POISONING. 161788 04-15

PROPRANOLOL
PROPRANOLOL ANTAGONISM OF MARIHUANA INDUCED TACHYCARDIA. 150404 04-15
CNS EFFECTS OF PROPRANOLOL IN MAN. 150665 04-08
PHARMACOLOGICAL STUDIES WITH TIPRENOLOL AND PROPRANOLOL IN MAN. 156817 04-13
EFFECT OF PROPRANOLOL ON FREE FATTY ACIDS OF MICE PLASMA DURING A PASSIVE AVOIDANCE TEST. 157155 04-03
EFFECTS OF PROPRANOLOL AND CHLORDIAZEPOXIDE ON CONFLICT BEHAVIOR IN RATS. 158005 04-04
MORPHINE, PROPRANOLOL AND THEIR INTERACTION IN MONKEYS TRAINED TO SELF-ADMINISTER DRUGS. (UNPUBLISHED PAPER). 158321 04-04
THE USE OF PROPRANOLOL IN THE TREATMENT OF HYPERTENSION. 158356 04-17

PROTEIN
INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE. 150583 04-03
PLASMA PROTEIN BINDING OF 7-HYDROXY-DELTA1-TETRAHYDROCANNABINOL: AN ACTIVE DELTA1-TETRAHYDROCANNABINOL METABOLITE. 156799 04-03
THE EFFECT OF CHOLERA TOXIN ON THE PHOSPHORYLATION OF PROTEIN IN EPITHELIAL CELLS AND THEIR BRUSH BORDERS. 156879 04-03

PROTEINS
SEROTONIN BINDING PROTEINS ISOLATED BY AFFINITY CHROMATOGRAPHY. (UNPUBLISHED PAPER). 158570 04-03
DISPLACEMENT OF THIOPENTAL FROM PLASMA PROTEINS BY NONSTEROIDAL ANTIINFLAMMATORY AGENTS. 163635 04-05
EFFECTS OF P-CHLOROPHENYLALANINE AND 5-HYDROXYTRYPTOPHAN ON SLEEP - WAKEFULNESS AND THE CENTRAL METABOLISM OF MONOAMINES AND PROTEINS IN THE CAT. 166692 04-04

PROTRIPTYLINE
ANTAGONISM BY PROTRIPTYLINE AND DESIPRAMINE OF THE RESPONSE OF THE VAS-DEFERENS OF THE RAT TO NOREPINEPHRINE, ACETYLCHOLINE AND POTASSIUM. 157110 04-03
INFLUENCE OF AMPHETAMINES, PROTRIPTYLINE AND PARGYLINE ON THE TIME COURSE OF THE NOREPINEPHRINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RAT BRAIN. 165790 04-03

PROVOCATIVE
COMPARATIVE EFFECTIVENESS OF NATURAL SLEEP AND METHOHEXITAL: PROVOCATIVE TESTS IN ELECTROENCEPHALOGRAPHY. 161331 04-11

PROVOKED
ACTION OF CARBAMAZEPINE (TEGRETOL) AND APHENDIONE ON REACTIONS PROVOKED BY INTRAAMYGDALOID ADMINISTRATION OF CARBACHOLINE TO RABBITS.
151815 04-04

PSYCHEDELIC
PSYCHEDELIC (LSD) THERAPY OF NEUROTIC DISORDERS: SHORT-TERM EFFECTS.
162155 04-12

PSYCHIATRIC
THE EFFECTS OF LONG-ACTING THIORIDAZINE IN SOME PSYCHIATRIC DISEASES.
149744 04-11
TWENTY YEARS OF CHLORPROMAZINE IN PSYCHIATRIC PRACTICE.
150769 04-17
ON SOME NEW POSSIBILITIES FOR THE THERAPEUTIC USE OF TEGRETOL IN THE PSYCHIATRIC CLINIC.
151809 04-11
PSYCHIATRIC CASE STUDIES: TREATMENT, DRUGS, AND OUTCOME.
154482 04-17
POSITIVE OUTCOME IN PSYCHIATRIC CRISIS: EVALUATION OF THIORIDAZINE CONCENTRATE IN AN INTENSIVE, SHORT-TERM PSYCHIATRIC PROGRAM.
155793 04-10
PSYCHIATRIC COMPLICATIONS OF MEDICAL DRUGS.
160942 04-15
VOLTAGE LATERALITY IN THE EEG OF PSYCHIATRIC PATIENTS.
162365 04-08
PSYCHIATRIC COMPLICATIONS OF EVERYDAY DRUGS.
162382 04-17
PSYCHIATRIC COMPLICATIONS OF MEDICAL DRUGS.
163221 04-17
DIAZEPAM IN THE TREATMENT OF INSOMNIA IN PSYCHIATRIC PATIENTS.
163682 04-11
SEX-ROLE DEVELOPMENT AND RESPONSE TO MEDICATION BY PSYCHIATRIC INPATIENTS.
165189 04-17
RESPONSE THRESHOLD TO L-DOPA IN PSYCHIATRIC PATIENTS.
166068 04-14
EFFECTS OF MODE OF MANAGEMENT ON PLASMA CHLORPROMAZINE IN PSYCHIATRIC PATIENTS.
166721 04-08

PSYCHIATRY
LITHIUM THERAPY IN PSYCHIATRY.
150796 04-14
ORTHOMOLECULAR PSYCHIATRY: TREATMENT OF SCHIZOPHRENIA.
150971 04-08
EXPLORING WITH DRUGS: THE PHARMACOLOGIST IN PSYCHIATRY.
152722 04-13
AN ANIMAL MODEL FOR PSYCHOPHARMACOLOGICAL RESEARCH WITH RELEVANCE TO PSYCHIATRY.
153026 04-06
POLYPHARMACY IN PSYCHIATRY: EMPIRICISM, EFFICACY, AND RATIONALE.
153796 04-17
THE USE OF CLOMIPRAMINE IN PSYCHIATRY: REFLECTIONS ON FOUR YEARS OF EXPERIMENTS.
157234 04-09
CURRENT STATUS OF MONOAMINE OXIDASE INHIBITORS IN PSYCHIATRY.
159544 04-09
PSYCHOMETRIC TESTS AND CLINICAL EXPERIMENTATION IN PSYCHIATRY.
160315 04-14
ROLE OF CONSULTATION PSYCHIATRY IN TEACHING PSYCHOPHARMACOLOGY IN THE GENERAL HOSPITAL.
161595 04-17
MEDICAL ORTHODOXY AND ORTHOMOLECULAR PSYCHIATRY.
163998 04-08

PSYCHIC
A CASE OF TURNERS SYNDROME WITH PSYCHIC DISTURBANCES.
156552 04-11

PSYCHOACTIVE
AVERSIVE CONDITIONING BY PSYCHOACTIVE DRUGS: EFFECTS OF MORPHINE, ALCOHOL AND CHLORDIAZEPOXIDE.
153107 04-04
ACUTE PAROTITIS ASSOCIATED WITH DEPRESSION AND PSYCHOACTIVE DRUG THERAPY.
155089 04-14
HAZARDS IMPLICIT IN PRESCRIBING PSYCHOACTIVE DRUGS.
158625 04-17
METABOLISM OF SOME PSYCHOACTIVE COMPOUNDS. (PH.D. DISSERTATION).
159816 04-03
PSYCHOACTIVE COMPOUNDS AND AUDIOGENIC SEIZURE SUSCEPTIBILITY.
160770 04-03
INFLUENCE OF SOME PSYCHOACTIVE DRUGS ON MINERAL METABOLISM IN MAN.
161388 04-08
ANALYSIS OF AMPHETAMINES AND OTHER PSYCHOACTIVE DRUGS.
166901 04-06

PSYCHOANALYTIC
THE USE OF LSD IN THE PSYCHOANALYTIC TREATMENT OF A CASE OF ANXIETY HYSTERIA.
156920 04-10

PSYCHOBIOLOGICAL
THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. I. SUBJECTIVE EXPERIENCES.
157343 04-14
THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. II. PITUITARY THYROID RESPONSES.
157344 04-13

PSYCHODRUGS
CLINICAL USE OF PSYCHODRUGS.
150776 04-10

PSYCHOGERIATRIC
BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. I. CHLORPROMAZINE AND THIORIDAZINE.
152867 04-11
BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. II. MULTIVITAMIN SUPPLEMENT.
152868 04-11

PSYCHOLOGICAL
THE EFFECTS OF A SINGLE ADMINISTRATION OF ETIFOXINE ON SEVERAL PSYCHOLOGICAL TESTS.
150672 04-07
PSYCHOLOGICAL ASPECTS OF SHORT-TERM VERSUS LONG-TERM L-DOPA THERAPY IN PARKINSONISM. (PH.D. DISSERTATION).
159895 04-14
RELATIONSHIPS OF CHLORDIAZEPOXIDE BLOOD LEVELS TO PSYCHOLOGICAL AND BIOCHEMICAL RESPONSES.
160477 04-14
BARBITURATE TOLERANCE AND PSYCHOLOGICAL FUNCTIONING IN ELDERLY DEPRESSED PATIENTS.
162639 04-09

PSYCHOMETRIC
PSYCHOMETRIC TESTS AND CLINICAL EXPERIMENTATION IN PSYCHIATRY.
160315 04-14

PSYCHOMOTOR
PECULIARITIES OF THE TREATMENT OF EPILEPTIC PATIENTS WITH PSYCHOMOTOR PAROXYSMS.
151806 04-11

PSYCHONEUROENDOCRINE
TWO ANTIANXIETY DRUGS: A PSYCHONEUROENDOCRINE STUDY.
155436 04-13

PSYCHONEUROTIC
THIORIDAZINE: ALLEVIATION OF THE MIXED ANXIETY DEPRESSIVE PSYCHONEUROTIC STATE.
159067 04-14
DOUBLE-BLIND COMPARISON OF HALOPERIDOL AND THIORIDAZINE IN TREATMENT RESISTANT PSYCHONEUROTIC OUTPATIENTS.
163337 04-10

PSYCHOPATHOLOGICAL
PSYCHOPATHOLOGICAL FACTORS IN MENIERES DISEASE.
150254 04-11
HENRI MICHAUX AND PSYCHOPATHOLOGICAL RESEARCH.
163264 04-12

PSYCHOPATHOLOGY
ROLE OF MONOAMINES IN THE PSYCHOPATHOLOGY OF MOTORICITY: IMPLICATED NEURAL CIRCUITS IN THE PSYCHOPATHOLOGY OF PARKINSONIAN SYNDROMES.
150219 04-11
THE CASE FOR REPORTING THE DRUG STATUS OF PATIENT SUBJECTS IN EXPERIMENTAL STUDIES OF SCHIZOPHRENIC PSYCHOPATHOLOGY.
159043 04-06

PSYCHOPHARMACEUTICALS
PSYCHOPHARMACEUTICALS. II. PHENOTHIAZINE DERIVATIVES.
150775 04-07
DRUG INTERACTION WITH PSYCHOPHARMACEUTICALS.
166987 04-03

PSYCHOPHARMACEUTICS
PSYCHOPHARMACEUTICS: III. RESERPINE.
150774 04-13

PSYCHOPHARMACOLOGICAL
PSYCHOPHARMACOLOGICAL ASPECTS OF COFFEE AND OF CAFFEINE.
149749 04-14
AN ANIMAL MODEL FOR PSYCHOPHARMACOLOGICAL RESEARCH WITH RELEVANCE TO PSYCHIATRY.
153026 04-06
SIGNIFICANCE AND COMPLICATIONS OF THE CULUTURAL VARIABLES IN PSYCHOPHARMACOLOGICAL RESEARCH.
155267 04-17

PAPERS ON PSYCHOPHARMACOLOGICAL RESEARCH FROM THE JAPANESE LITERATURE.
155278 04-17

USE OF PSYCHOPHARMACOLOGICAL AGENTS IN CHILDREN.
156847 04-11

PSYCHOPHARMACOLOGICAL STUDY OF SCHIZOPHRENIA -- SOME WAYS OUT OF AN IMPASSE.
160219 04-17

CRITICAL REFLECTIONS CONCERNING PSYCHOPHARMACOLOGICAL TREATMENT OF SCHIZOPHRENICS.
166977 04-08

PSYCHOPHARMACOLOGY

PSYCHOPHARMACOLOGY.
153629 04-17

METHODOLOGICAL CONSIDERATIONS IN TRANSCULTURAL PSYCHOPHARMACOLOGY.
155261 04-17

PEDIATRIC PSYCHOPHARMACOLOGY OUTSIDE THE UNITED-STATES.
155276 04-17

PSYCHOPHARMACOLOGY OF SLEEP.
161281 04-14

ROLE OF CONSULTATION PSYCHIATRY IN TEACHING PSYCHOPHARMACOLOGY IN THE GFNERAL HOSPITAL.
161595 04-17

INTERNATIONAL DIRECTORY OF INVESTIGATORS IN PSYCHOPHARMACOLOGY.
161669 04-17

PSYCHOPHARMACOLOGY OF THE DEPRESSIVE NEUROSIS.
163994 04-09

RESUMES OF RESEARCH PROJECTS IN PSYCHOPHARMACOLOGY.
166875 04-17

ANIMAL PHARMACOLOGY AND HUMAN PSYCHOPHARMACOLOGY OF 3-METHOXY-4,5 METHYLENEDIOXYPHENYLISOPROPYLAMINE (MMDA).
167041 04-01

PSYCHOPHARMACOTHERAPY

RESULTS OF STUDY OF SEVERAL ASPECTS OF SUPPORTIVE PSYCHOPHARMACOTHERAPY IN SCHIZOPHRENIA.
151768 04-08

RECENT TRENDS IN PSYCHOPHARMACOTHERAPY IN THE UNITED-STATES.
166549 04-17

PSYCHOPHYSIOLOGICAL

DECLINING-DOSE DRUG DESENSITIZATION FOR PHOBIAS: CLINICAL AND PSYCHOPHYSIOLOGICAL STUDIES.
153607 04-10

COMPARATIVE PSYCHOPHYSIOLOGICAL AND MOOD EFFECTS OF DIAZEPAM AND DIPOTASSIUM CLORAZEPATE.
163782 04-13

PSYCHOSES

ON CLINICOIMMUNOLOGIC CORRELATIONS IN THE EVALUATION OF REMISSIONS IN PATIENTS WITH DELAYED EPILEPTIC PSYCHOSES.
151805 04-11

PSYCHOSIS

SEVERE INFECTIOUS HEPATITIS COMPLICATED WITH ACUTE PSYCHOSIS DURING HYDROCORTISONE TREATMENT.
151380 04-11

INFLUENCE OF TIZERTSINE AND TRIFLUOPERAZINE ON MOBILITY OF MAIN NERVOUS PROCESSES IN PATIENTS WITH PRESENILE PSYCHOSIS.
156588 04-11

REVERSIBLE TOXIC PSYCHOSIS AFTER CEPHALEXIN.
156754 04-15

INTERACTION OF STRESS AND PSYCHOTOMIMETIC DRUG ACTION: POSSIBLE IMPLICATION FOR PSYCHOSIS.
157042 04-04

THE EXPERIMENTAL REPRODUCTION OF AMPHETAMINE PSYCHOSIS.
157345 04-12

PSYCHOSIS WITH CHRONIC BRUCELLOSIS.
159345 04-14

PSYCHOSIS IN FABRY DISEASE AND TREATMENT WITH PHENOXYBENZAMINE.
159775 04-07

TREATMENT OF PSYCHOSIS SUBSEQUENT TO PHENOTHIAZINE INDUCED AGRANULOCYTOSIS.
161582 04-14

PSYCHOSOMATIC

BEHAVIORAL AND PSYCHOSOMATIC EFFECTS OF BENZODIAZEPINES: INTERACTIONS WITH OTHER DRUGS.
158301 04-14

THE EFFECT OF SULPIRIDE ON THE VERTIGO OF MENIERES SYNDROME AND ON PSYCHOSOMATIC VESTIBULAR DISORDER.
165755 04-12

PSYCHOSTIMULATING

ON THE USE OF ARMINE IN THE QUALITY OF PSYCHOSTIMULATING DRUGS IN SCHIZOPHRENIA.
156589 04-08

PSYCHOTHERAPEUTIC

RECENT ADVANCES IN PSYCHOTHERAPEUTIC DRUGS AND THEIR SIDE-EFFECTS: A SYMPOSIUM.
155994 04-15

PHYSICIAN CHARACTERISTICS AND ATTITUDES TOWARD LEGITIMATE USE OF PSYCHOTHERAPEUTIC DRUGS.
158645 04-17

USES OF PSYCHOTHERAPEUTIC DRUGS.
159347 04-17

PREDICTION OF THERAPEUTIC USES OF PSYCHOTHERAPEUTIC DRUGS FROM EXPERIENCES WITH NORMAL VOLUNTEERS.
167106 04-14

PSYCHOTHERAPY

SPECIFIC CHARACTERISTICS OF DIBENZOTHIAZEPINE IN PSYCHOTHERAPY.
149745 04-11

THE MANAGEMENT OF LITHIUM IN PSYCHOTHERAPY.
150256 04-15

DPT AS AN ADJUNCT IN PSYCHOTHERAPY OF ALCOHOLICS.
160221 04-11

LSD ASSISTED PSYCHOTHERAPY IN PATIENTS WITH TERMINAL CANCER.
161385 04-11

PSYCHOTIC

LITHIUM CARBONATE IN THE AMBULATORY, CHRONICALLY PSYCHOTIC PATIENT.
150347 04-08

COMPARATIVE DATA FROM A STUDY OF THE METABOLISM OF BIOGENIC AMINES OF EPILEPTIC PATIENTS IN A PSYCHOTIC STATE.
151803 04-13

THE THERAPEUTIC EFFECTS OF LORAZEPAN IN PSYCHOTIC PATIENTS TREATED WITH HALOPERIDOL: A DOUBLE-BLIND STUDY.
152209 04-09

RAPID TRANQUILIZATION OF ACUTELY PSYCHOTIC PATIENTS WITH INTRAMUSCULAR HALOPERIDOL AND CHLORPROMAZINE.
155797 04-09

PSYCHOTOMIMETIC

INTERACTION OF STRESS AND PSYCHOTOMIMETIC DRUG ACTION: POSSIBLE IMPLICATION FOR PSYCHOSIS.
157042 04-04

THE PLACE OF ETHNOBOTANY IN THE ETHNOPHARMACOLOGIC SEARCH FOR PSYCHOTOMIMETIC DRUGS.
158626 04-17

THE ACTIVATION OF PINEAL HYDROXYINDOLE-O-METHYLTRANSFERASE BY PSYCHOTOMIMETIC DRUGS.
165999 04-03

PSYCHOTOXIC

BEHAVIORAL PROFILE OF A POTENT NEW PSYCHOTOXIC COMPOUND.
150294 04-07

PSYCHOTROPIC

MOUTH DRYNESS, A NOTABLE REACTION TO PSYCHOTROPIC THERAPY, AND ITS TREATMENT.
150646 04-15

PRESCRIPTION OF PSYCHOTROPIC DRUGS BY GENERAL PRACTITIONERS: 1. GENERAL.
150791 04-17

CLINICAL EXPERIMENTS WITH A NEW PSYCHOTROPIC: SULPIRIDE.
151263 04-07

OBSERVATIONS ON THE USE OF LITHIUM SALTS IN ASSOCIATION WITH PSYCHOTROPIC DRUGS.
151265 04-09

EFFECTS OF ESTROGEN AND PROGESTERONE ON BRAIN MONOAMINES: INTERACTIONS WITH PSYCHOTROPIC DRUGS.
152045 04-03

COMPUTER ASSIGNMENT OF PSYCHOTROPIC DRUGS.
152899 04-17

STUDY OF THE EFFECT OF PSYCHOTROPIC DRUGS ON TENSION IN MOOD STATES.
153090 04-09

PRESCRIPTION OF PSYCHOTROPIC DRUGS BY GENERAL PRACTITIONERS: 2. ANTIDEPRESSANTS.
153264 04-17

DRUG DEVELOPMENTS IN EUROPE: DISCOVERY OF TETRACYCLIC PSYCHOTROPIC DRUGS.
155268 04-17

PSYCHOTROPIC DRUGS, DIABETES AND CHRONIC MENTAL PATIENTS.
155888 04-15

THE INFLUENCE OF PSYCHOTROPIC DRUGS ON THE GENETIC CELL MATERIAL.
156569 04-15

IN VITRO INHIBITORY EFFECTS OF NARCOTIC ANALGESICS AND OTHER PSYCHOTROPIC DRUGS ON THE ACTIVE UPTAKE OF NOREPINEPHRINE IN MOUSE BRAIN TISSUE.
157063 04-03

IMPROVING SCHEDULING AND REDUCING COSTS OF PSYCHOTROPIC DRUGS FOR OUTPATIENTS.
157291 04-17

CLINICAL PEARLS: OVERDOSE OF PSYCHOTROPIC DRUGS.
158261 04-15

PHARMACOLOGICAL STUDIES ON THE HYPOTHALAMUS (REPORT 7). CONDITIONING OF HYPOTHALAMIC BEHAVIORAL RESPONSES AND EFFECTS OF PSYCHOTROPIC DRUGS.
158488 04-04

ELECTROPHYSIOLOGICAL STUDIES ON ACTION OF PSYCHOTROPIC DRUGS IN RELATION TO BRAIN MONOAMINES.
158505 04-03

EFFECTS OF PSYCHOTROPIC DRUGS ON SEGMENTAL SPINAL REFLEX AND SPINO-BULBO-SPINAL (SBS) REFLEX.
158509 04-03

ATTEMPT TO EVALUATE THE PHYSICAL DEPENDENCE LIABILITY OF PSYCHOTROPIC DRUGS IN MICE (2).
158513 04-03

PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09

THE USE AND ABUSE OF THE PSYCHOTROPIC DRUGS.
160696 04-17

A DISCRIMINATIVE STUDY OF THE ACTION OF A PSYCHOTROPIC DRUG BY THE USE OF THE B.P.R.S. CARDS.
161278 04-11

CLINICAL JUDGMENT VS. MULTIVARIATE FORMULAE IN ASSIGNMENT OF PSYCHOTROPIC DRUGS.
161818 04-14

THE EFFECT OF PSYCHOTROPIC SUBSTANCES ON ONE OF THE FORMS OF INTRASPECIES RELATIONS.
162920 04-04

PSYCHOTROPIC DRUGS: AGENTS OF HOPE OR DESPAIR.
163001 04-17

ARE PSYCHOTROPIC DRUGS BEING MISUSED?
163002 04-17

PSYCHOTROPIC DRUGS IN USE TODAY: THE ROLE OF DIAZEPAM IN MEDICAL PRACTICE.
163165 04-17

DISSOCIATION OF TWO COMPONENTS OF RAT BEHAVIOR BY PSYCHOTROPIC DRUGS: UTILIZATION FOR STUDYING ANXIOLYTIC DRUGS.
163760 04-04

INTERACTIONS OF PSYCHOTROPIC DRUGS IN THE ELDERLY.
166019 04-13

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: III. THE EFFECTS OF AMITRIPTYLINE.
166723 04-14

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: II. THE EFFECTS OF RESERPINE.
166724 04-14

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: I. METHODOLOGY AND THE EFFECTS OF PLACEBO.
166725 04-14

PUNISHED

DRUGS AND PUNISHED RESPONDING: III. PUNISHMENT INTENSITY AS A DETERMINANT OF DRUG EFFECT.
150322 04-04

DRUGS AND PUNISHED RESPONDING II: D-AMPHETAMINE INDUCED INCREASES IN PUNISHED RESPONDING.
162325 04-04

PUNISHMENT

DRUGS AND PUNISHED RESPONDING: III. PUNISHMENT INTENSITY AS A DETERMINANT OF DRUG EFFECT.
150322 04-04

ANTIANXIETY ACTION OF BENZODIAZEPINES: DECREASE IN ACTIVITY OF SEROTONIN NEURONS IN THE PUNISHMENT SYSTEM.
158280 04-04

EFFECTS OF BEHAVIORALLY ACTIVE DRUGS IN A CONFLICT PUNISHMENT PROCEDURE IN RATS.
158281 04-04

STUDY OF ANTIANXIETY EFFECTS OF DRUGS IN THE RAT, WITH A MULTIPLE PUNISHMENT AND REWARD SCHEDULE.
158282 04-04

PUNISHMENT OF SACCHARIN DRINKING BY AMPHETAMINE IN RATS AND ITS REVERSAL BY CHLORDIAZEPOXIDE.
166165 04-04

PUTATIVE

EFFECTS OF ETHANOL ON CEREBRAL CORTICAL NEURONS: INTERACTIONS WITH SOME PUTATIVE TRANSMITTERS.
158773 04-03

PYRAZOLE

PYRAZOLE DIURESIS IN RATS WITH AND WITHOUT ALCOHOL.
154613 04-03

PYROVALERONE

A CONTROLLED EVALUATION OF PYROVALERONE IN CHRONICALLY FATIGUED VOLUNTEERS.
160217 04-14

PYRROLASE

ANTIDEPRESSANTS AND LIVER TRYPTOPHAN PYRROLASE ACTIVITY.
155222 04-03

QUANTITATION

QUANTITATION OF DELTA1-TETRAHYDROCANNABINOL IN PLASMA FROM CANNABIS SMOKERS.
158770 04-16

QUANTITATIVE

QUANTITATIVE DETERMINATION OF MORPHINE IN POPPY CAPSULES BY DIFFERENTIAL SPECTROPHOTOMETRY.
150416 04-01

QUANTITATIVE DETERMINATION OF DIAZEPAM IN BLOOD BY RADIOIMMUNOASSAY.
159370 04-06

APPLICATION OF QUANTITATIVE GC-MASS SPECTROMETRY TO STUDY OF PHARMACOKINETICS OF AMPHETAMINE AND PHENTERMINE.
163188 04-03

CLINICAL AND EEG INVESTIGATIONS WITH CI-579 AND CI-600 (QUANTITATIVE PHARMACOELECTROENCEPHALOGRAPHY AND SLEEP PRINTS).
166733 04-08

QUESTION

MARIJUANA AND AMPHETAMINE: THE QUESTION OF INTERACTION.
152715 04-14

ON THE QUESTION OF SUBCLASSIFICATION OF ALPHA-ADRENOCEPTORS.
161144 04-03

QUESTIONNAIRE

SIDE-EFFECTS OF HYPOTENSIVE AGENTS EVALUATED BY A SELF-ADMINISTERED QUESTIONNAIRE.
162720 04-13

QUIPAZINE

INFLUENCE OF QUIPAZINE, A POTENTIAL ANTIPARKINSONIAN AGENT ON THE UPTAKE OF 3H-DOPAMINE AND 3H-SEROTONIN INTO RAT STRIATAL TISSUE IN VITRO.
163793 04-03

RABBIT

SYNAPTIC ALTERATIONS IN THE RABBIT HYPOTHALAMUS FOLLOWING LONG-TERM ADMINISTRATION OF HALOPERIDOL.
150398 04-05

SYNAPTIC CHANGES IN THE RABBIT PALLIDUM FOLLOWING LONG-TERM HALOPERIDOL ADMINISTRATION.
152027 04-05

SYNAPTIC ALTERATIONS IN THE HYPOTHALAMUS OF THE RABBIT FOLLOWING LONG-TERM CHLORPROMAZINE ADMINISTRATION.
152028 04-05

DESMETHYLIMIPRAMINE AND THE HYPOTENSIVE ACTION OF CLONIDINE IN THE RABBIT.
152142 04-03

DEVELOPMENT AND CHARACTERISTICS OF THE HISTAMINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RABBIT CEREBRAL CORTEX. (UNPUBLISHED PAPER).
154372 04-03

DELTA9-TETRAHYDROCANNABINOL: ELECTROENCEPHALOGRAPHIC CHANGES AND AUTONOMIC RESPONSES IN THE RABBIT.
154970 04-03

THE EFFECTS OF ANALGESICS AND NEUROLEPTICS ON THE RELEASE OF MONOAMINE METABOLITES INTO THE LATERAL CEREBRAL VENTRICLE OF RABBIT.
158482 04-03

THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03

RABBITS

ACTION OF CARBAMAZEPINE (TEGRETOL) AND APHENDIONE ON REACTIONS PROVOKED BY INTRAAMYGDALOID ADMINISTRATION OF CARBACHOLINE TO RABBITS.
151815 04-04

STUDIES ON THE EFFECTS OF PENTAZOCINE ON THE RESPIRATION OF RABBITS.
158483 04-03

EFFECT OF P-CHLOROPHENYLALANINE ON THE INTERACTION BETWEEN PHENELZINE AND PETHIDINE IN CONSCIOUS RABBITS.
160201 04-04

DELTA9-TETRAHYDROCANNABINOL AND THE SLEEP WAKEFULNESS CYCLE IN RABBITS.
161119 04-04

THE SUPPRESSION IN RABBITS OF THE LOCOMOTOR EFFECTS OF DOPA BY DIETHYLDITHIOCARBAMATE.
161340 04-03

DEXTROMETHORPHAN MONOAMINE OXIDASE INHIBITOR INTERACTION IN RABBITS.
163801 04-03

RADIATION

CHILDHOOD ACROMEGALY: SUCCESSFUL THERAPY WITH CONVENTIONAL RADIATION AND EFFECTS OF CHLORPROMAZINE ON GROWTH HORMONE AND PROLACTIN SECRETION.
160653 04-13

RADICALS

COMPARATIVE EFFECTS OF SUBSTITUTED PHENOTHIAZINES AND THEIR FREE RADICALS ON (NA+,K+)- ACTIVATED ADENOSINE TRIPHOSPHATASE.
156640 04-03

RADIOIMMUNOASSAY
QUANTITATIVE DETERMINATION OF DIAZEPAM IN BLOOD BY RADIOIMMUNOASSAY.
159370 04-06

RAPHE
EFFECT OF 6-HYDROXYDOPAMINE, 5, 6 DIHYDROXYTRYPTAMINE AND RAPHE LESIONS ON THE ANTINOCICEPTIVE ACTIONS OF MORPHINE IN RATS.
157141 04-03

RAPID
1766-CERM: A NEW ANTIDEPRESSANT WITH RAPID ACTION.
150644 04-09
RAPID TRANQUILIZATION OF ACUTELY PSYCHOTIC PATIENTS WITH INTRAMUSCULAR HALOPERIDOL AND CHLORPROMAZINE.
155797 04-09
RAPID DETECTION OF BARBITURATES IN URINE.
156848 04-06

RAPIDITY
RAPIDITY OF RESPONSE TO THE TREATMENT OF ENURESIS.
158012 04-13

RAT
THE EFFECT OF PROLONGED LITHIUM ADMINISTRATION ON ACTIVITY, REACTIVITY, AND ENDURANCE IN THE RAT.
150324 04-04
THE EFFECTS OF 6-HYDROXYDOPAMINE, DOPAMINE AND DL-NOREPINEPHRINE ON FOOD INTAKE AND WATER CONSUMPTION, SELF-STIMULATION, TEMPERATURE AND ELECTROENCEPHALOGRAPHIC ACTIVITY IN THE RAT.
150352 04-04
EFFECTS OF CHLORPROMAZINE AND PHENOBARBITAL ON RAT LIVER AND BRAIN OXIDATIVE N-OXIDASE AND N-DEMETHYLASE ACTIVITIES.
150399 04-03
CATECHOLAMINE SYNTHESIS AND THE REGULATION OF FOOD INTAKE IN THE RAT.
150423 04-04
EFFECTS OF RESERPINE ON THE CONTENT AND PROPERTIES OF RAT ADRENAL MEDULLARY STORAGE VESICLES.
150580 04-03
THE COMPLEXITY OF THE INHIBITORY ACTION OF DICOUMAROL ON THE MIXED FUNCTION OXIDASE SYSTEM OF RAT LIVER MICROSOMES.
150582 04-03
INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE.
150583 04-03
DISTRIBUTION OF SOME STRUCTURALLY RELATED PHARMACOLOGICAL AGENTS IN RAT BRAIN.
150584 04-03
THE LONG-TERM EFFECT OF PERPHENAZINE ENANTHATE ON THE RAT BRAIN. SOME METABOLIC AND ANATOMICAL OBSERVATIONS.
150668 04-03
POTENTIATION OF THE EFFECTS OF CHLORPROMAZINE ON EXPLORATION IN THE RAT BY A PRIOR EXPERIENCE OF THE DRUG.
150671 04-04
MICROIONTOPHORETIC STUDIES OF CONFORMATIONALLY RESTRICTED ANALOGUES OF GAMMA-AMINOBUTYRATE OF RAT HIPPOCAMPAL NEURONS. (UNPUBLISHED PAPER).
151435 04-03
CATECHOLAMINE CONCENTRATIONS IN DISCRETE AREAS OF THE RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
151629 04-03
BIOCHEMICAL EFFECTS OF THE ANTICONVULSANTS TRIMETHADIONE, ETHOSUXIMIDE, AND CHLORDIAZEPOXIDE IN RAT BRAIN.
152087 04-03
BILIARY AND URINARY ELIMINATION OF METHADONE AND ITS METABOLITES IN THE RAT.
152098 04-03
AFLATOXIN-B1 AND PHENOBARBITAL INDUCIBLE AFLATOXIN-DELTA2 HYDRATION BY RAT LIVER MICROSOMES.
152165 04-03
THE EFFECTS OF SPREADING DEPRESSION ON PENICILLIN INDUCED EPILEPTIFORM ACTIVITY IN RAT BRAIN.
152438 04-05
EFFECTS OF MORPHINE ON CATECHOLAMINE TURNOVER, CYCLIC 3,5 AMP CONCENTRATIONS AND TYROSINE HYDROXYLASE ACTIVITY IN RAT TISSUES. (UNPUBLISHED PAPER).
152549 04-03
LONG-TERM EFFECTS OF MORPHINE ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR OF THE RAT.
153103 04-03
PATTERN OF SYMPATHETIC NERVOUS SYSTEM (SNS) DISCHARGE AND THE BLOOD PRESSURE RESPONSE TO FOOTSHOCK IN THE RAT.
153202 04-03
MEASUREMENT OF ANALGESIA USING A SPATIAL PREFERENCE TEST IN THE RAT.
153569 04-04
ROLE OF BETA-ADRENERGIC RECEPTOR IN THE CONTROL OF SEROTONIN N-ACETYLTRANSFERASE IN RAT PINEAL. (UNPUBLISHED PAPER).
154368 04-03
IMPAIRMENT OF LATENT LEARNING IN THE RAT BY A MARIHUANA COMPONENT.
154814 04-04
EFFECT OF DESMETHYLIMIPRAMINE ON ACETYLCHOLINE UPTAKE BY SLICES OF RAT BRAIN CORTEX.
155494 04-03
NEUROCHEMICAL TERATOLOGY: 5-HYDROXYINDOLE CONCENTRATIONS IN DISCRETE AREAS OF RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
156751 04-03
THE EFFECT OF TRIVASTAL, HALOPERIDOL AND DIBUTYRYL CYCLIC AMP ON (14C)DOPAMINE SYNTHESIS IN RAT STRIATUM.
156766 04-03
TWO CANNABIDOL METABOLITES FORMED BY RAT LIVER.
156801 04-03
EFFECTS OF DESIPRAMINE AND RESERPINE ON FREE AND BOUND ACETYLCHOLINE IN RAT BRAIN.
156807 04-03
THE EFFECTS OF CINANSERIN, A POTENT SEROTONIN ANTAGONIST, ON THE ACQUISITION OF A RUNNING RESPONSE IN THE RAT.
156808 04-04
NORADRENERGIC AND CHOLINERGIC ACTION ON NEURONAL ACTIVITY DURING SELF-STIMULATION BEHAVIOR IN THE RAT.
156810 04-04
A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03
THE CARDIOVASCULAR EFFECTS OF APOMORPHINE IN THE ANAESTHETIZED RAT.
156818 04-03
INSULIN STIMULATION OF AIB TRANSPORT IN RAT THYMOCYTES. (UNPUBLISHED PAPER).
156869 04-03
NORFENFLURAMINE AND SEROTONIN TURNOVER RATE IN THE RAT BRAIN.
157000 04-03
MECHANISM OF THE SYNERGISTIC LETHALITY BETWEEN PENTAZOCINE AND VASOPRESSIN IN THE RAT.
157066 04-05
THE EFFECT OF CHLORPROMAZINE ON THE PEAK SHIFT IN THE ALBINO RAT.
157084 04-04
EFFECT OF DRUGS ON THE TRYPTAMINE CONTENT OF RAT TISSUES.
157109 04-03
ANTAGONISM BY PROTRIPTYLINE AND DESIPRAMINE OF THE RESPONSE OF THE VAS-DEFERENS OF THE RAT TO NOREPINEPHRINE, ACETYLCHOLINE AND POTASSIUM.
157110 04-03
PHYSIOLOGICAL AND BEHAVIORAL EFFECTS OF PARA-CHLOROPHENYLALANINE IN THE RAT.
157143 04-03
EFFECTS OF METHAMPHETAMINE AND CHLORDIAZEPOXIDE ON SCHEDULE CONTROLLED AND ADJUNCTIVE LICKING IN THE RAT.
157156 04-04
STUDY OF ANTIANXIETY EFFECTS OF DRUGS IN THE RAT, WITH A MULTIPLE PUNISHMENT AND REWARD SCHEDULE.
158282 04-04
SPONTANEOUS MOTOR ACTIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL MOTOR ACTIVITY AND SENSORY ACTIVITY.
158486 04-04
AUDITORY SENSITIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL SENSORY ACTIVITY AND SPONTANEOUS MOTOR ACTIVITY.
158487 04-03
EFFECT OF AMANTADINE ON SEROTONIN METABOLISM IN RAT BRAIN.
158506 04-03
UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE.
158771 04-03
EFFECTS OF DIETHYLDITHIOCARBAMATE AND ETHANOL ON THE IN VIVO METABOLISM AND PHARMACOKINETICS OF AMPHETAMINE IN THE RAT.
158775 04-03
SEROTONIN METABOLISM IN RAT BRAIN AFTER SURGICAL DIVERSION OF THE PORTAL VENOUS CIRCULATION.
159449 04-03
ROLE OF BRAIN 5-HYDROXYTRYPTAMINE IN AUDIOGENIC SEIZURE IN THE RAT.
159565 04-03

EFFECT OF 6-HYDROXYDOPAMINE ON DARK ADAPTATION IN THE RAT RETINA.
159569 04-03
DIGITOXIGENIN METABOLISM BY RAT LIVER MICROSOMES AND ITS INDUCTION BY PHENOBARBITAL.
160200 04-03
EFFECT OF CHLORPROMAZINE ON 3H-PHENAZINE METHOSULFATE UPTAKE INTO VARIOUS REGIONS OF RAT BRAIN AND INTO SUBCELLULAR FRACTIONS OF BRAIN AND LIVER (IN VITRO).
160202 04-03
DIURNAL VARIATIONS OF LITHIUM CLEARANCE IN THE RAT.
160220 04-03
THE EFFECT OF PHENOBARBITONE ANESTHESIA UPON SOME ORGANIC PHOSPHATES, GLYCOLYTIC METABOLITES AND CITRIC ACID CYCLE ASSOCIATED INTERMEDIATES OF THE RAT BRAIN.
160226 04-03
THE INTERACTION OF CHLORDIAZEPOXIDE, DIAZEPAM, AND NITRAZEPAM WITH CATECHOLAMINES AND HISTAMINE IN REGIONS OF THE RAT BRAIN.
160471 04-03
INCREASE IN MOUSE AND RAT BRAIN ACETYLCHOLINE LEVELS BY DIAZEPAM.
160475 04-03
EFFECT OF BENZODIAZEPINES ON CARBOHYDRATE METABOLISM IN RAT BRAIN.
160476 04-03
ETHANOL AND ACETALDEHYDE METABOLISM IN RAT STRAINS GENETICALLY SELECTED FOR THEIR ETHANOL PREFERENCE.
160542 04-03
AMPHETAMINE AS A MODEL FOR HYPERACTIVITY IN THE RAT.
160583 04-04
ATTENUATION OF THE MORPHINE EEG CONTINUUM FOLLOWING A REPEAT DOSE WITHIN 16 DAYS: DELAYED TOLERANCE IN THE RAT.
160633 04-03
AGONISTIC PROPERTIES OF NARCOTIC ANALGESICS AND ANTAGONISTS ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR IN THE RAT AND THEIR REVERSAL BY NALOXONE.
160634 04-03
UPTAKE OF (3H)- CATECHOLAMINES BY HOMOGENATES OF RAT CORPUS-STRIATUM AND CEREBRAL CORTEX: EFFECTS OF AMPHETAMINE ANALOGUES.
160637 04-03
EFFECT OF CHLORIMIPRAMINE ON THE METABOLISM OF 5-HYDROXYTRYPTAMINE IN THE RAT BRAIN.
160647 04-03
THE EFFECT OF HEXAFLUORODIETHYL ETHER (FLUROTHYL) ON THE METABOLISM OF RAT BRAIN AMINO ACIDS LABELLED BY (U-14C)GLUCOSE.
160767 04-03
THE HYPOTHERMIC EFFECT OF L-DOPA IN THE RAT.
160769 04-03
THE EFFECT OF RESERPINE, CHLORPROMAZINE AND NEMBUTAL ON LEVELS OF DIPEPTIDES IN RAT BRAIN AND MUSCLE.
160772 04-03
EFFECT OF PHENOBARBITAL INDUCTION ON GALACTOSE ELIMINATION CAPACITY IN THE RAT.
160799 04-03
THE EFFECTS OF CHOLINERGIC DRUGS ON OPERANT BEHAVIOUR OF THE RAT. (PH.D. DISSERTATION).
160910 04-04
THE EFFECT OF THE CONVULSANT 3-MERCAPTOPROPIONIC ACID ON ENZYMES OF THE GAMMA-AMINOBUTYRATE SYSTEM IN THE RAT CEREBRAL CORTEX.
161378 04-03
INHIBITION OF MORPHINE INDUCED PITUITARY ADRENAL ACTIVATION BY DEXAMETHASONE IN THE FEMALE RAT (37506).
162049 04-03
INFLUENCE OF ANTICHOLINERGIC ANTIPARKINSONIAN AGENTS ON THE EFFECTS OF NARCOANALGESIC DRUGS IN THE RAT.
162057 04-03
A COMPARISON OF THE METABOLIC EFFECTS OF GROWTH HORMONE AND GROWTH FACTOR FROM SPIROMETRA-MANSONOIDES ON RAT LIVER IN VIVO. (UNPUBLISHED PAPER).
162391 04-03
CHARACTERIZATION OF CENTRAL ANGIOTENSIN II RECEPTORS INVOLVED IN THE ELICITATION OF DRINKING IN THE RAT.
162890 04-03
EFFECT OF TWO ACTH ANALOGS ON NORADRENALINE METABOLISM IN RAT BRAIN.
162895 04-03
INTERACTION OF DIPHENYLHYDANTONIN-4-14C WITH SUBCELLULAR FRACTIONS OF RAT BRAIN.
162949 04-03
THE SUBCELLULAR DISTRIBUTION OF LYSERGIC ACID DIETHYLAMIDE IN THE RAT BRAIN.
162956 04-03
COMPARISON OF EFFECTS OF L-DOPA, AMPHETAMINE AND APOMORPHINE ON FIRING RATE OF RAT DOPAMINERGIC NEURONES.
162974 04-03
ANALOGUES OF GAMMA-AMINOBUTYRATE ON RAT HIPPOCAMPAL NEURONES.
162975 04-03
SEROTONIN RECEPTORS OF THE RAT BRAIN, THEIR INTERACTIONS WITH METHYSERGIDE. (PH.D. DISSERTATION).
163029 04-03
THE IN VIVO EFFECT OF TROPOLONE ON DOPAMINE METABOLISM AND THE CATECHOL-O-METHYLTRANSFERASE ACTIVITY IN THE STRIATUM OF THE RAT.
163321 04-03
EFFECT OF LONG-TERM FENFLURAMINE TREATMENT ON DRUG METABOLISM IN RAT.
163632 04-05
PHENOBARBITAL INDUCED FATTY LIVERS IN THE RAT.
163637 04-05
LONG-TERM RECOVERY OF SEROTONIN CONCENTRATIONS IN THE RAT CNS FOLLOWING 5,6 DIHYDROXYTRYPTAMINE.
163697 04-03
SOME EFFECTS OF THE HALLUCINOGENIC DRUG 2,5 DIMETHOXY-4-METHYLAMPHETAMINE ON THE METABOLISM OF BIOGENIC AMINES IN THE RAT BRAIN.
163749 04-03
BEHAVIORAL AND BIOCHEMICAL EFFECTS OF CHRONIC ADMINISTRATION OF BROMIDE IN THE RAT.
163753 04-04
SOME AGONISTIC ACTIONS OF THE MORPHINE ANTAGONIST LEVALLORPHAN ON BEHAVIOR AND BRAIN MONOAMINES IN THE RAT.
163757 04-03
DISSOCIATION OF TWO COMPONENTS OF RAT BEHAVIOR BY PSYCHOTROPIC DRUGS: UTILIZATION FOR STUDYING ANXIOLYTIC DRUGS.
163760 04-04
APPLICATION OF PRINCIPLES OF STEADY-STATE KINETICS TO MEASURE ACETYLCHOLINE TURNOVER RATE IN RAT SALIVARY GLANDS: EFFECT OF DEAFFERENTATION AND DUCT LIGATION.
163763 04-03
THE EFFECT OF IMIPRAMINE ADMINISTERED BEFORE AND DURING PREGNANCY ON LITTER SIZE IN THE RAT.
163772 04-03
INFLUENCE OF QUIPAZINE, A POTENTIAL ANTIPARKINSONIAN AGENT ON THE UPTAKE OF 3H-DOPAMINE AND 3H-SEROTONIN INTO RAT STRIATAL TISSUE IN VITRO.
163793 04-03
EFFECT OF SOME LIPID SOLUBLE DERIVATIVES OF AMPHETAMINE ON AMPHETAMINE LEVELS IN RAT BRAIN.
163804 04-03
A PROJECTION OF THE NUCLEUS LOCUS-COERULEUS TO THE HIPPOCAMPUS OF THE RAT. (UNPUBLISHED PAPER).
164836 04-03
EFFECTS OF NEUROHUMORAL AND ADRENERGIC AGENTS ON CYCLIC AMP LEVELS IN VARIOUS AREAS OF THE RAT BRAIN IN VITRO. (UNPUBLISHED PAPER).
165682 04-03
INFLUENCE OF AMPHETAMINES, PROTRIPTYLINE AND PARGYLINE ON THE TIME COURSE OF THE NOREPINEPHRINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RAT BRAIN.
165790 04-03
NOREPINEPHRINE (NE) TURNOVER IN THE CENTRAL NERVOUS SYSTEM (CNS) -- ESTIMATED IN THE RAT FROM URINARY 3-METHOXY-4-HYDROXYPHENYLGLYCOL (MHPG) EXCRETION. (UNPUBLISHED PAPER
165941 04-03
AMPHETAMINE-INDUCED INHIBITION OF TYROSINE HYDROXYLATION IN HOMOGENATES OF RAT CORPUS-STRIATUM.
166000 04-03
UPTAKE AND METABOLISM OF L-3,4 DIHYDROXYPHENYLALANINE (DOPA) IN RAT TISSUES.
166022 04-05
EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF DESMETHYLIMIPRAMINE ON THE CONTENT OF NOREPINEPHRINE AND OTHER MONOAMINES IN THE RAT BRAIN.
166027 04-03
INHIBITORY EFFECT OF GEROVITAL-H3 AND PROCAINE ON MONOAMINE OXIDASE IN RAT BRAIN, LIVER, HEART AND PLATELETS.
166386 04-11
EFFECT OF AN AMPHETAMINE DERIVATIVE IN RAT ADIPOSE TISSUE LIPOLYSIS AND GLYCEROL UTILIZATION IN VITRO.
166693 04-03
EFFECT OF CHEMICAL SYMPATHECTOMY ON MORPHINE ANTINOCICEPTION AND TOLERANCE DEVELOPMENT IN THE RAT.
166694 04-03
EFFECT OF DIPHENYLHYDANTOIN ON THE UPTAKE AND CATABOLISM OF L-(3H)NOREPINEPHRINE IN VITRO IN RAT CEREBRAL CORTEX TISSUE.
166696 04-03
MODIFICATION OF SEROTONIN METABOLISM IN RAT BRAIN AFTER ACUTE OR CHRONIC ADMINISTRATION OF MORPHINE.
166698 04-03

POTENTIATING EFFECT OF CHLORPROMAZINE ON GLYCERYL GUAIACOLATE ETHER INDUCED HEMOLYSIS OF RAT, DOG AND HUMAN BLOOD IN VITRO.
166790 04-13

EFFECT OF MORPHINE ON THE RNA AND ATP CONCENTRATION OF BRAIN STRUCTURES OF THE RAT.
167043 04-03

RATE

BENZODIAZEPINES: A STUDY OF THE RELATIONSHIP BETWEEN THEIR EFFECT ON CATECHOLAMINE TURNOVER RATE AND PENTYLENETETRAZOLE CONVULSIONS. (UNPUBLISHED PAPER).
152543 04-03

NEUROMUSCULAR BLOCKING DRUGS AND THE HEART RATE RESPONSE TO DIRECT PREGANGLIONIC STIMULATION OF THE SYMPATHETICS AND PARASYMPATHETICS IN THE CAT.
153171 04-03

NORFENFLURAMINE AND SEROTONIN TURNOVER RATE IN THE RAT BRAIN.
157000 04-03

IN VIVO EFFECTS OF AMPHETAMINE ON METABOLITES AND METABOLIC RATE IN BRAIN.
161379 04-03

EFFECT OF VARIOUS SEDATIVE DRUGS ON LEVELS OF CHOLINE AND ACETYLCHOLINE AND ON TURNOVER RATE OF ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
162398 04-03

COMPARISON OF EFFECTS OF L-DOPA, AMPHETAMINE AND APOMORPHINE ON FIRING RATE OF RAT DOPAMINERGIC NEURONES.
162974 04-03

EEG, HEART RATE AND MOOD CHANGE (HIGH) AFTER CANNABIS.
163747 04-13

APPLICATION OF PRINCIPLES OF STEADY-STATE KINETICS TO MEASURE ACETYLCHOLINE TURNOVER RATE IN RAT SALIVARY GLANDS: EFFECT , OF DEAFFERENTATION AND DUCT LIGATION.
163763 04-03

PENTYLENETETRAZOL CONVULSIONS AND BRAIN CATECHOLAMINE TURNOVER RATE IN RATS AND MICE RECEIVING DIPHENYLHYDANTOIN AND BENZODIAZEPINES.
164834 04-03

THE EFFECT OF GEROVITAL-H3 ON THE GROWTH RATE OF AGED MOUSE EMBRYO FIBROBLASTS AND ON THE PATHOGENESIS INDUCED BY A RNA C-TYPE VIRUS.
166387 04-03

RATING

DRUG RESPONSES IN DIFFERENT ANXIETY STATES UNDER BENZODIAZEPINE TREATMENT. SOME MULTIVARIATE ANALYSES FOR THE EVALUATION OF RATING SCALE FOR DEPRESSION SCORES.
158285 04-14

RATIONALE

POLYPHARMACY IN PSYCHIATRY: EMPIRICISM, EFFICACY, AND RATIONALE.
153796 04-17

POSSIBLE RATIONALE FOR PROCAINE (GEROVITAL-H3) THERAPY IN GERIATRICS: INHIBITION OF MONOAMINE OXIDASE.
160951 04-11

A SCIENTIFIC RATIONALE FOR CHOOSING PATIENTS RATHER THAN NORMAL SUBJECTS FOR PHASE I STUDIES.
167107 04-14

RATS

INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04

ENHANCED APPETITIVE DISCRIMINATION LEARNING IN RATS TREATED WITH ALPHA-METHYLTYROSINE.
150320 04-04

TOLERANCE IN THE DEPRESSION OF INTAKE WHEN AMPHETAMINE IS ADDED TO THE RATS FOOD.
150353 04-03

THE EFFECT OF AMANTADINE AND (_)- AMPHETAMINE ON MOTILITY IN RATS AFTER INHIBITION OF MONOAMINE SYNTHESIS AND STORAGE.
150354 04-04

EFFECTS OF LITHIUM CHLORIDE ON THE ACTIVITY OF RATS TESTED ALONE OR IN PAIRS.
150356 04-04

ACTIVATION OF LORDOTIC RESPONDING IN FEMALE RATS BY SUPPRESSION OF SEROTONERGIC ACTIVITY.
150380 04-04

II. THE EFFECTS OF SOME HALLUCINOGENS ON AGGRESSIVENESS OF MICE AND RATS.
150406 04-04

DEPTH PERCEPTION IN RATS FOLLOWING ACUTE OR CHRONIC INJECTIONS OF DL-DELTA9-TETRAHYDROCANNABINOL.
150420 04-04

BEHAVIOURAL AND PHARMACOLOGICAL STUDIES ON MORPHINE INDUCED EXCITATION OF RATS. POSSIBLE RELATION TO BRAIN CATECHOLAMINES.
150667 04-04

SUPPRESSION AND RECOVERY OF MOUSE KILLING IN RATS FOLLOWING IMMEDIATE LITHIUM CHLORIDE INJECTIONS.
151228 04-04

COMPARISON BETWEEN O-AMINOPHENOL GLUCURONIDATION IN LIVER SLICES AND HOMOGENATES FROM CONTROL AND PHENOBARBITAL TREATED WISTAR AND GUNN RATS.
151351 04-03

A PERMANENT CHANGE IN CONVULSIVE THRESHOLD IN NORMAL AND BRAIN-DAMAGED RATS WITH REPEATED SMALL DOSES OF PENTYLENETETRAZOL.
152437 04-03

EXTINCTION OF AVOIDANCE IN RATS: THE EFFECTS OF CHLORPROMAZINE AND METHYLPHENIDATE ADMINISTERED IN CONJUNCTION WITH FLOODING RESPONSE (PREVENTION).
152525 04-04

INTAKE OF DIAZEPAM AND HASHISH BY ALCOHOL PREFERRING RATS DEPRIVED OF ALCOHOL.
153571 04-03

COMPARISON OF CHLORDIAZEPOXIDE AND FOOD DEPRIVATION IN RATS ON A FIXED-RATIO SATIATION SCHEDULE.
153599 04-04

PYRAZOLE DIURESIS IN RATS WITH AND WITHOUT ALCOHOL.
154613 04-03

INFLUENCE OF CHANGES IN ADRENERGIC AND CHOLINERGIC ACTIVITY UPON ACQUISITION OF OPERANT DISCRIMINATION IN ALBINO RATS.
154639 04-04

BIOGENIC AMINES AND THEIR METABOLISM IN THE STUDY OF AGGRESSIVE BEHAVIOR IN RATS.
155248 04-04

TASTE AVERSIONS AND ACUTE METHYLMERCURY POISONING IN RATS.
155341 04-05

FIXED-INTERVAL SCHEDULES OF INTRAVENOUS COCAINE PRESENTATION IN RATS.
155410 04-04

METABOLISM OF AMPHETAMINE AND BETA,BETA DIFLUOROAMPHETAMINE IN PHENOBARBITAL TREATED RATS.
155493 04-03

GLYCOGEN CONTENT AND PHOSPHORYLASE ACTIVITY IN LIVER AND SKELETAL MUSCLE OF NORMAL AND CHRONICALLY MORPHINIZED RATS.
156638 04-03

INHIBITION OF STIMULATED CEREBRAL RESPIRATION IN VITRO AND OXYGEN CONSUMPTION IN VIVO IN RATS TREATED BY CHOLINOLYTIC DRUGS.
156639 04-03

IDENTIFICATION OF 5-(3,4 DIHYDROXYPHENYL)-5 PHENYLHYDANTOIN AS A METABOLITE OF 5,5 DIPHENYLHYDANTOIN (PHENYTOIN) IN RATS AND MAN.
156650 04-06

EFFECTS OF AMANTADINE, AMPHETAMINE AND APOMORPHINE ON THE LOCOMOTOR ACTIVITY IN RATS.
156752 04-04

DIFFERENTIAL EFFECTS OF AMPHETAMINE, FENFLURAMINE AND NORFENFLURAMINE STEREOISOMERS ON THE INCREASE OF STRIATUM HOMOVANILLIC ACID IN RATS.
156759 04-03

DRUG-INDUCED CHANGES OF STRIATAL CHOLINERGIC AND DOPAMINERGIC FUNCTIONS IN RATS WITH SPREADING DEPRESSION.
156797 04-03

ACQUISITION AND LOSS OF TOLERANCE TO 1 DELTA9-TRANS-TETRAHYDROCANNABINOL IN RATS ON AN AVOIDANCE SCHEDULE.
157039 04-04

THE EFFECT OF DL-PROPRANOLOL, D-PROPRANOLOL AND PRACTOLOL ON THE HYPERACTIVITY INDUCED IN RATS BY PROLONGED ISOLATION.
157040 04-04

POSSIBLE CATECHOLAMINE MEDIATION OF LEVALLORPHAN INDUCED BEHAVIOURAL DISRUPTION IN RATS.
157041 04-04

ECS PRODUCED DISRUPTION OR FACILITATION OF DISCRIMINATED ACTIVE AVOIDANCE PERFORMANCE IN RATS.
157094 04-03

GROWTH AND BEHAVIORAL CHANGES IN DEVELOPING RATS TREATED INTRACISTERNALLY WITH 6-HYDROXYDOPAMINE: EVIDENCE FOR INVOLVEMENT OF BRAIN DOPAMINE.
157117 04-03

EFFECT OF 6-HYDROXYDOPAMINE, 5, 6 DIHYDROXYTRYPTAMINE AND RAPHE LESIONS ON THE ANTINOCICEPTIVE ACTIONS OF MORPHINE IN RATS.
157141 04-03

ACUTE EFFECTS OF TWO TETRAHYDROCANNABINOLS (DELTA9-THC AND DELTA8-THC) ON WATER INTAKE IN WATER DEPRIVED RATS: IMPLICATIONS FOR BEHAVIORAL STUDIES ON MARIHUANA COMPOUNDS.
157149 04-04

ACUTE AND CHRONIC TOLERANCE TO NICOTINE MEASURED BY ACTIVITY IN RATS.
157151 04-03

MORPHINE DEPENDENCE IN RATS WITH MEDIAL FOREBRAIN BUNDLE LESIONS.
157152 04-03
LABOR DIVISION OF RATS UNDER THE INFLUENCE OF PROLONGED ADMINISTRATION OF (-)DELTA9-TRANS-TETRAHYDROCANNABINOL.
157181 04-04
DIFFERENTIAL EFFECTS OF DELTA9-THC ON LOCOMOTOR BEHAVIOR IN ACTIVITY WHEEL HABITUATED AND NONHABITUATED RATS.
157182 04-04
LOCALIZATION IN BRAIN PARTICULATE FRACTIONS OF NARCOTIC ANALGESIC DRUGS ADMINISTERED INTRACISTERNALLY TO RATS.
157185 04-03
BEHAVIORAL EFFECTS OF ANTIMUSCARINIC AND ANTINICOTINIC COMPOUNDS IN RATS.
157341 04-04
EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING.
158000 04-04
EFFECTS OF PROPRANOLOL AND CHLORDIAZEPOXIDE ON CONFLICT BEHAVIOR IN RATS.
158005 04-04
CORTICAL CUPS FOR COLLECTING FREE ACETYLCHOLINE IN AWAKE RATS. (UNPUBLISHED PAPER)
158057 04-06
EFFECTS OF BEHAVIORALLY ACTIVE DRUGS IN A CONFLICT PUNISHMENT PROCEDURE IN RATS.
158281 04-04
ACTIVITY OF BENZODIAZEPINES ON AGGRESSIVE BEHAVIOR IN RATS AND MICE.
158287 04-04
STUDIES ON IN VIVO METABOLISM OF NIMETAZEPAM (S-1530) IN MICE & RATS.
158478 04-03
EFFECTS OF CHLORPROMAZINE AND DIAZEPAM ON OPERANT RESPONSE DURATION IN RATS.
158489 04-04
EFFECT OF GINSENOSIDE-RGL, A SAPONIN OF PANAX GINSENG ROOT, ON LEARNING AND MEMORY IN RATS.
158490 04-04
STATE-DEPENDENT LEARNING (DISSOCIATION OF LEARNING) WITH HALLUCINOGENS IN RATS.
158492 04-04
HYPNOTIC EFFECT OF 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA) IN EXPERIMENTALLY INDUCED INSOMNIA AND BRAIN SEROTONIN IN RATS.
158504 04-04
EFFECTS OF TRAZODONE ON SLEEP WAKEFULNESS CYCLE IN RATS.
158508 04-04
FURTHER EVIDENCE IN SUPPORT OF A COMMON ADRENERGIC MECHANISM FOR THE FACILITATORY ACTION ON LEARNING OF AMPHETAMINE AND NICOTINE IN RATS.
158772 04-04
RESTORATION OF MORPHINE ANALGESIA IN MORPHINE TOLERANT RATS AFTER THE INTRAVENTRICULAR ADMINISTRATION OF 6-HYDROXYDOPAMINE.
158774 04-03
GROWTH OF SUCKLING RATS AFTER TREATMENT WITH DEXAMETHASONE OR CORTISOL: IMPLICATIONS FOR STEROID THERAPY IN HUMAN INFANTS.
159355 04-03
THE EFFECTS OF HYPOTHALAMIC IMPLANTS OF ALDOSTERONE, ANGIOTENSIN II, CARBACOL, NOREPINEPHRINE, AND NACL ON WATER AND NACL INTAKE IN NORMAL AND ADRENALECTOMIZED RATS.
159391 04-04
EFFECTS OF ACUTE AND CHRONIC ADMINISTRATION OF CANNABIS-SATIVA EXTRACT ON THE MOUSE KILLING BEHAVIOR OF RATS.
159568 04-04
METABOLISM AND DISTRIBUTION OF CANNABINOIDS IN RATS AFTER DIFFERENT METHODS OF ADMINISTRATION.
160198 04-03
EFFECT OF AMPHETAMINE ON THE SWIMMING ENDURANCE OF RATS.
160641 04-04
NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS.
160854 04-04
THE EFFECT OF FOCALLY ADMINISTERED DRUGS ON SELF-STIMULATION OF THE VENTRAL TEGMENTAL AREA IN RATS. (PH.D. DISSERTATION).
160896 04-04
SEX DIFFERENCES IN FIGHTING AND DEFENSE INDUCED IN RATS BY SHOCK AND D-AMPHETAMINE DURING MORPHINE ABSTINENCE.
161125 04-04
LITHIUM EFFECTS ON MAGNESIUM METABOLISM IN RATS.
161390 04-03
MORPHINE INDUCED SACCHARIN AVERSION IN ALPHA-METHYLTYROSINE PRETREATED RATS.
162279 04-03
EFFECTS OF VENTROMEDIAL HYPOTHALAMIC LESIONS ON CONDITIONED SUCROSE AVERSIONS IN RATS.
162673 04-02
EFFECT OF LITHIUM ON THE BLOOD AND INTESTINAL SEROTONIN CONTENTS OF RATS.
163019 04-05
ADENYL CYCLASE ACTIVITY IN KIDNEYS OF RATS WITH LITHIUM INDUCED POLYURIA.
163320 04-03
EFFECTS OF CHLORPROMAZINE AND METHAMPHETAMINE ON SOCIABILITY IN RATS.
163752 04-04
THE EFFECTS OF PIMOZIDE ON DOMINANT SUBORDINATE BEHAVIOUR IN WISTAR RATS COMPETING FOR FOOD.
163758 04-04
SELF-ADMINISTRATION OF OPTICAL ISOMERS OF AMPHETAMINE AND METHYLAMPHETAMINE BY RATS.
163766 04-04
DECREASED ANTINOCICEPTIVE ACTIVITY OF MORPHINE IN RATS PRETREATED INTRAVENTRICULARLY WITH 5,6 DIHYDROXYTRYPTAMINE, A LONG-LASTING SELECTIVE DEPLETOR OF BRAIN SEROTONIN.
163775 04-03
THE EFFECTS OF CHRONIC CANNABIS TREATMENT ON THE AGGRESSIVE BEHAVIOR AND BRAIN 5-HYDROXYTRYPTAMINE LEVELS OF RATS WITH DIFFERENT TEMPERAMENTS.
163778 04-04
THE EFFECTS OF PENTOBARBITAL ON EXTINCTION RESPONDING IN RATS. (PH.D. DISSERTATION).
164545 04-04
PENTYLENETETRAZOL CONVULSIONS AND BRAIN CATECHOLAMINE TURNOVER RATE IN RATS AND MICE RECEIVING DIPHENYLHYDANTOIN AND BENZODIAZEPINES.
164834 04-03
EFFECT OF SULPIRIDE ON OXYGEN UPTAKE BY RATS BRAIN TISSUE IN VITRO.
165411 04-03
EMBRYO FETOTOXIC EFFECT OF METHYLMERCURIC CHLORIDE IN RATS AND MICE.
165730 04-05
INCREASED BLOOD ETHANOL ELIMINATION IN RATS TREATED WITH HALOTHANE.
165995 04-03
PUNISHMENT OF SACCHARIN DRINKING BY AMPHETAMINE IN RATS AND ITS REVERSAL BY CHLORDIAZEPOXIDE.
166165 04-04
A BEHAVIORAL AND PHARMACOLOGICAL ANALYSIS OF SOME DISCRIMINABLE PROPERTIES OF D-LSD IN RATS.
166728 04-04
DISSOCIATION OF EXCITATORY AND HYPERPYREXIC EFFECTS OF LSD IN RATS TREATED WITH ALPHA-METHYLTYROSINE.
166732 04-03

RE-EVALUATION
THE RE-EVALUATION OF A CENTRAL NERVOUS SYSTEM STIMULANT: PIPRADROL HYDROCHLORIDE.
152211 04-09

REACTION
MOUTH DRYNESS, A NOTABLE REACTION TO PSYCHOTROPIC THERAPY, AND ITS TREATMENT.
150646 04-15
EXCESSIVE REACTION TO METHAQUALONE HCL DURING BIOAVAILABILITY STUDY.
166735 04-15

REACTIONS
ACTION OF CARBAMAZEPINE (TEGRETOL) AND APHENDIONE ON REACTIONS PROVOKED BY INTRAAMYGDALOID ADMINISTRATION OF CARBACHOLINE TO RABBITS.
151815 04-04
PHARMACOLOGY: DRUG ACTIONS AND REACTIONS.
164233 04-17

REACTIVE
A STUDY OF THE TREATMENT OF REACTIVE AND NEUROTIC DEPRESSIONS BY A COMBINATION OF AMITRIPTYLINE AND PERPHENAZINE.
150255 04-09

REACTIVITY
THE EFFECT OF PROLONGED LITHIUM ADMINISTRATION ON ACTIVITY, REACTIVITY, AND ENDURANCE IN THE RAT.
150324 04-04
SKIN CONDUCTANCE BASAL LEVEL AND REACTIVITY IN SCHIZOPHRENIA AS A FUNCTION OF CHRONICITY, PREMORBID ADJUSTMENT, DIAGNOSIS, AND MEDICATION.
154170 04-08

REALITY
SEX-CRAZED DOPE FIENDS -- MYTH OR REALITY?
151309 04-04

RECEIVING
PENTYLENETETRAZOL CONVULSIONS AND BRAIN CATECHOLAMINE TURNOVER RATE IN RATS AND MICE RECEIVING DIPHENYLHYDANTOIN AND BENZODIAZEPINES.
164834 04-03

RECEPTOR
TREMOR AND INVOLUNTARY MOVEMENTS IN MONKEYS: EFFECT OF L-DOPA AND OF A DOPAMINE RECEPTOR STIMULATING AGENT.
149651 04-03
OPIATE RECEPTOR: DEMONSTRATION IN NERVOUS TISSUE.
150381 04-03
DOPAMINE AND NORADRENALINE RECEPTOR STIMULATION: REVERSAL OF RESERPINE INDUCED SUPPRESSION OF MOTOR ACTIVITY.
150664 04-03
DOPAMINE RECEPTOR BLOCKADE -- A CENTRAL ACTION OF CHLORPROMAZINE ON STRIATAL NEURONS.
152439 04-13
ROLE OF BETA-ADRENERGIC RECEPTOR IN THE CONTROL OF SEROTONIN N-ACETYLTRANSFERASE IN RAT PINEAL. (UNPUBLISHED PAPER).
154368 04-03
THE REGULATION OF PINEAL SEROTONIN BY A BETA ADRENERGIC RECEPTOR.
159369 04-03
DOPAMINE SENSITIVE ADENYLATE CYCLASE: THE DOPAMINE RECEPTOR IN THE MAMMALIAN NERVOUS SYSTEM. (PH.D. DISSERTATION).
159484 04-01
ANALYSIS OF THE EFFECTS OF APOMORPHINE AND BULBOCAPNINE IN RELATION TO THE PROPOSED DOPAMINE RECEPTOR.
161142 04-03
ADRENERGIC RECEPTOR ROLES IN EPINEPHRINE REVERSAL BY CHLORPROMAZINE. (PH.D. DISSERTATION).
165680 04-03

RECEPTORS
CHARACTERIZATION OF CENTRAL ANGIOTENSIN II RECEPTORS INVOLVED IN THE ELICITATION OF DRINKING IN THE RAT.
162890 04-03
SEROTONIN RECEPTORS OF THE RAT BRAIN, THEIR INTERACTIONS WITH METHYSERGIDE. (PH.D. DISSERTATION).
163029 04-03

RECIPROCAL
USE OF ORAL DDT IN THREE HUMAN BARBITURATE INTOXICATIONS: HEPATIC ENZYME INDUCTION BY RECIPROCAL DETOXICANTS.
155205 04-15

RECORDED
THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03

RECOVERY
SUPPRESSION AND RECOVERY OF MOUSE KILLING IN RATS FOLLOWING IMMEDIATE LITHIUM CHLORIDE INJECTIONS.
151228 04-04
LONG-TERM RECOVERY OF SEROTONIN CONCENTRATIONS IN THE RAT CNS FOLLOWING 5,6 DIHYDROXYTRYPTAMINE.
163697 04-03

RECURRENT
RECURRENT MANIA IN A YOUNG MAN.
151439 04-09
LITHIUM IN RECURRENT MANIC-DEPRESSIVE DISORDER.
162380 04-09

RECURRING
LITHIUM AS A PROPHYLACTIC AGENT IN RECURRING AFFECTIVE DISORDERS.
156416 04-09

RED
CHLORPROMAZINE HYDROXYLAMINES IN RED BLOOD CELLS AS MAJOR METABOLITES OF CHLORPROMAZINE IN MAN.
151633 04-13

RED-GREEN
EFFECTS OF CHLORDIAZEPOXIDE UPON SUCCESSIVE RED-GREEN DISCRIMINATION RESPONSES IN JAPANESE MONKEYS, MACACA-FUSCATA.
150325 04-04

REDUCED
THE EFFECTS OF BENZODIAZEPINES ON AGGRESSION: REDUCED OR INCREASED
150292 04-04
THE EFFECTS OF BENZODIAZEPINES ON AGGRESSION: REDUCED OR INCREASED
158289 04-04

REDUCES
NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS.
160854 04-04

REDUCING
LITHIUM TOXICITY OCCURRING WITH A REDUCING DIET.
153613 04-09
IMPROVING SCHEDULING AND REDUCING COSTS OF PSYCHOTROPIC DRUG THERAPY FOR OUTPATIENTS.
157291 04-17

REDUCTASE
INHIBITION OF BOVINE BRAIN ALDEHYDE REDUCTASE BY ANTICONVULSANT COMPOUNDS IN VITRO.
166699 04-03

REDUCTION
TRICYCLIC ANTIDEPRESSANTS AND LIMB REDUCTION DEFORMITIES: A FURTHER COMMUNICATION FROM THE AUSTRALIAN DRUG EVALUATION COMMITTEE.
151932 04-15
REDUCTION OF HYPERACTIVE BEHAVIOR BY CONDITIONING PROCEDURES ALONE AND COMBINED WITH METHYLPHENIDATE (RITALIN).
161049 04-14
REDUCTION OF AUDIOGENIC SEIZURE BY DELTA8- AND DELTA9-TETRAHYDROCANNABINOLS.
166001 04-04

REFLECTION
THE REFLECTION OF EJECTING AND RETAINING CURRENTS IN THE TIME COURSE OF NEURONAL RESPONSES TO MICROELECTROPHORETICALLY APPLIED DRUGS.
158768 04-03

REFLEX
INTERACTION OF OXOTREMORINE WITH ATROPINE, CHLORPROMAZINE, CYPROHEPTADINE, IMIPRAMINE AND PHENOXYBENZAMINE ON THE FLEXOR REFLEX OF THE CHRONIC SPINAL DOG.
150318 04-03
THE INFLUENCE OF METHAMPHETAMINE AND DIAZEPAM ON THE AMPLITUDE CHANGES OF THE ACHILLES TENDON AND HOFFMANN REFLEX DURING A MENTAL TASK.
152074 04-14
EFFECTS OF PSYCHOTROPIC DRUGS ON SEGMENTAL SPINAL REFLEX AND SPINO-BULBO-SPINAL (SBS) REFLEX.
158509 04-03
THE TONIC VIBRATION REFLEX SEEN IN THE ACUTE SPINAL CAT AFTER TREATMENT WITH DOPA.
162892 04-03
THE EFFECT OF MEDAZEPAM (S-804) ON THE PHOTOPALPEBRAL REFLEX.
166941 04-13

REFLEXES
NATURE OF THE EFFECT OF NEUROLEPTICS AND ANTIDEPRESSANTS ON CONDITIONED AND UNCONDITIONED REFLEXES.
160537 04-13
ANTAGONISM OF DESCENDING EFFECTS OF THE SUBSTANTIA-NIGRA ON LUMBO-SACRAL MONOSYNAPTIC REFLEXES.
160635 04-03
EFFECTS OF NEW S-TRIAZOLOBENZODIAZEPINE (D-40TA) AND OTHER CENTRAL MUSCLE RELAXANTS ON SPINAL AND SUPRASPINAL REFLEXES IN CATS.
163798 04-03

REGISTER
LITHIUM AND PREGNANCY -- I, REPORT FROM THE REGISTER OF LITHIUM BABIES.
155041 04-15

REGULATION
CATECHOLAMINE SYNTHESIS AND THE REGULATION OF FOOD INTAKE IN THE RAT.
150423 04-04
NARCOTIC ANALGESICS AND THE REGULATION OF NEURONAL CATECHOLAMINE STORES. (UNPUBLISHED PAPER).
152199 04-03
ON THE REGULATION OF TRYPTOPHAN HYDROXYLASE IN BRAIN. (UNPUBLISHED PAPER).
158182 04-03
THE REGULATION OF PINEAL SEROTONIN BY A BETA ADRENERGIC RECEPTOR.
159369 04-03

REINFORCEMENT
BLOCKING EFFECT OF ALPHA-METHYLTYROSINE ON AMPHETAMINE BASED REINFORCEMENT.
151630 04-04
FIXED-INTERVAL SCHEDULE OF COCAINE REINFORCEMENT: EFFECT OF DOSE AND INFUSION DURATION.
155411 04-04
LITHIUM AND AMPHETAMINE: OPPOSITE EFFECTS ON THRESHOLD OF INTRACRANIAL REINFORCEMENT.
157045 04-04

REINSTATEMENT
DRUG-INDUCED REINSTATEMENT OF AMPHETAMINE SELF-ADMINISTRATION BEHAVIOUR IN MONKEYS.
154210 04-04

RELAPSE
RELAPSE TO MORPHINE USE IN DOG.
150317 04-04
LONG-ACTING PHENOTHIAZINES IN THE PREVENTION OF RELAPSE OF SCHIZOPHRENIC PATIENTS.
155525 04-08

RELAXANTS
EFFECTS OF NEW S-TRIAZOLOBENZODIAZEPINE (D-40TA) AND OTHER CENTRAL MUSCLE RELAXANTS ON SPINAL AND SUPRASPINAL REFLEXES IN CATS.
163798 04-03

RELAXATION
ELECTROMYOGRAPHIC EVALUATION OF DRUG-INDUCED MUSCLE RELAXATION.
158296 04-11

RELEASE
ACCUMULATION, STORAGE AND RELEASE OF ADRENERGIC NEURON BLOCKING AGENTS AND RELATED DRUGS BY HUMAN PLATELETS.
150316 04-03
FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION.
150424 04-03
L-DOPA SUPPRESSION OF TRH STIMULATED PROLACTIN RELEASE IN MAN.
156772 04-13
ALTERATION OF CORTICAL AND RETICULAR ACETYLCHOLINE RELEASE BY ETHANOL IN VIVO.
158054 04-03
THE EFFECTS OF ANALGESICS AND NEUROLEPTICS ON THE RELEASE OF MONOAMINE METABOLITES INTO THE LATERAL CEREBRAL VENTRICLE OF RABBIT.
158482 04-03
SPONTANEOUS RELEASE AND DURING METRAZOL CONVULSIONS OF 5-HYDROXYTRYPTAMINE IN SOME BRAIN REGIONS OF CONSCIOUS CAT.
162056 04-03
BRAIN AMINE RELEASE DURING SUPPRESSED BEHAVIOR.
166530 04-03

RELIABLE
CANNABIS-SATIVA L. (MARIJUANA) II: STANDARDIZED AND RELIABLE MICROSCOPIC METHOD FOR DETECTION AND IDENTIFICATION OF MARIJUANA.
150419 04-01

RELIEF
THE EFFECTS OF ANTIDEPRESSANT DRUGS ON PAIN RELIEF AND MOOD IN THE CHRONICALLY ILL: A DOUBLE-BLIND STUDY.
163331 04-11

RELIEVING
PRESENT DAY POSSIBILITIES OF RELIEVING POSTNEUROLEPTIC EXTRAPYRAMIDAL SYMPTOMS.
156562 04-11
RELIEVING PAIN IN THE TERMINALLY ILL.
162311 04-11

REM
REM SLEEP AND CENTRAL MONOAMINE OXIDASE INHIBITION.
152122 04-13
L-DOPA AND REM SLEEP IN NORMAL AND MENTALLY RETARDED SUBJECTS.
157496 04-14
EFFECTS OF ALPHA-METHYLTYROSINE ON REM SLEEP AND BRAIN AMINE LEVELS IN THE CAT.
157497 04-03

REMISSIONS
ON CLINICOIMMUNOLOGIC CORRELATIONS IN THE EVALUATION OF REMISSIONS IN PATIENTS WITH DELAYED EPILEPTIC PSYCHOSES.
151805 04-11

RENAL
EXCRETION AND METABOLISM OF RESERPINE IN RENAL FAILURE.
151155 04-13
ACUTE RENAL FAILURE AND LITHIUM INTOXICATION.
152032 04-15
INHIBITION OF RENAL TUBULAR TRANSPORT OF MORPHINE BY DIETHYLAMINOETHANOL IN THE CHICKEN.
152162 04-03

REPEAT
ATTENUATION OF THE MORPHINE EEG CONTINUUM FOLLOWING A REPEAT DOSE WITHIN 16 DAYS: DELAYED TOLERANCE IN THE RAT.
160633 04-03

REPEATED
A PERMANENT CHANGE IN CONVULSIVE THRESHOLD IN NORMAL AND BRAIN-DAMAGED RATS WITH REPEATED SMALL DOSES OF PENTYLENETETRAZOL.
152437 04-03
EFFECTS OF REPEATED ADMINISTRATION OF DL-AMPHETAMINE AND METHAMPHETAMINE ON TOLERANCE TO HYPERACTIVITY.
162959 04-04

REPORTING
THE CASE FOR REPORTING THE DRUG STATUS OF PATIENT SUBJECTS IN EXPERIMENTAL STUDIES OF SCHIZOPHRENIC PSYCHOPATHOLOGY.
159043 04-06

REPRODUCTION
THE EXPERIMENTAL REPRODUCTION OF AMPHETAMINE PSYCHOSIS.
157345 04-12

REQUIREMENTS
THE 24-HOUR SERUM LITHIUM LEVEL AS A PROGNOSTICATOR OF DOSAGE REQUIREMENTS.
152911 04-16
STEREOSPECIFIC REQUIREMENTS FOR HALLUCINOGENSIS.
161146 04-01

RESEARCH
AN ANIMAL MODEL FOR PSYCHOPHARMACOLOGICAL RESEARCH WITH RELEVANCE TO PSYCHIATRY.
153026 04-06
DYNAMICS OF DRUG DEPENDENCE: IMPLICATIONS OF A CONDITIONING THEORY FOR RESEARCH AND TREATMENT.
155239 04-17
RECENT RESEARCH ON OPIATE ADDICTION -- REVIEW OF A NATIONAL PROGRAM.
155240 04-17
SIGNIFICANCE AND COMPLICATIONS OF THE CULUTURAL VARIABLES IN PSYCHOPHARMACOLOGICAL RESEARCH.
155267 04-17
THE RESEARCH PLAN REPORT: REVISED FORM AND INFORMATION RETRIEVAL SYSTEM.
155277 04-17
PAPERS ON PSYCHOPHARMACOLOGICAL RESEARCH FROM THE JAPANESE LITERATURE.
155278 04-17
SOME ISSUES OF CONTROL IN ALCOHOL RESEARCH ON ANIMAL BEHAVIOR.
159068 04-05
HENRI MICHAUX AND PSYCHOPATHOLOGICAL RESEARCH.
163264 04-12
REVIEW OF MEDICINE IN SPECIAL EDUCATION. DRUG RESEARCH: OUT OF SIGHT, OUT OF MIND.
166484 04-17
RESUMES OF RESEARCH PROJECTS IN PSYCHOPHARMACOLOGY.
166875 04-17

RESERPINE
FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION.
150424 04-03
EFFECTS OF RESERPINE ON THE CONTENT AND PROPERTIES OF RAT ADRENAL MEDULLARY STORAGE VESICLES.
150580 04-03
DOPAMINE AND NORADRENALINE RECEPTOR STIMULATION: REVERSAL OF RESERPINE INDUCED SUPPRESSION OF MOTOR ACTIVITY.
150664 04-03
PSYCHOPHARMACEUTICS: III. RESERPINE.
150774 04-13
EXCRETION AND METABOLISM OF RESERPINE IN RENAL FAILURE.
151155 04-13
EFFECTS OF DESIPRAMINE AND RESERPINE ON FREE AND BOUND ACETYLCHOLINE IN RAT BRAIN.
156807 04-03
PARAMAGNETIC ION INDUCED SHIFTS IN THE NMR SPECTRA OF RESERPINE AND METHYL 3,4,5 TRIMETHOXYBENZOATE.
156867 04-06
BIOSYNTHESIS OF RESERPINE FROM CARBON-14 DIOXIDE.
156868 04-01
EFFECTS OF RESERPINE, 6-HYDROXYDOPAMINE, P-CHLOROPHENYLALANINE AND A COMBINATION OF THESE SUBSTANCES ON THE GROOMING BEHAVIOUR OF MICE.
158001 04-04
NEW APPARATUS FOR LEARNING EXPERIMENT AND ITS APPLICATION - THE EFFECT OF CHLORPROMAZINE, RESERPINE AND AMPHETAMINE.
158493 04-04
EFFECTS OF L-DOPA AND RESERPINE ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158495 04-04
THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03
STUDY ON THE ABSORPTION AND EXCRETION OF RESERPINE AND ITS DERIVATIVE, BIETASERPINE.
158514 04-03
THE ROLE OF BIOGENIC AMINES IN THE RESERPINE INDUCED ALTERATION OF MINIMAL ELECTROSHOCK SEIZURE THRESHOLDS IN THE MOUSE.
160639 04-03
THE EFFECT OF RESERPINE, CHLORPROMAZINE AND NEMBUTAL ON LEVELS OF DIPEPTIDES IN RAT BRAIN AND MUSCLE.
160772 04-03
EFFECT OF RESERPINE ON FFA MOBILIZATION CAUSED BY EXTREME STIMULATION OF ANIMALS.
161964 04-03

DIFFERENTIAL EFFECTS OF RESERPINE AND ALPHA-METHYL-P-TYROSINE ON NOREPINEPHRINE AND DOPAMINE INDUCED BEHAVIORAL ACTIVITY.
162277 04-04

PREVENTION OF RESERPINE DEPLETION OF THE CATECHOLAMINE RESERVE WITH FLUORACIZINE.
162922 04-03

CONVULSIONS ELICITED BY HANDLING: A SENSITIVE METHOD OF MEASURING CNS EXCITATION IN MICE TREATED WITH RESERPINE OR CONVULSANT DRUGS.
163748 04-03

THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: II. THE EFFECTS OF RESERPINE.
166724 04-14

RESERPINE-LIKE

STUDY ON THE EFFECT OF A RESERPINE-LIKE SUBSTANCE (TETRABENAZINE) FOLLOWED BY THE ADMINISTRATION OF A TRICYCLIC ANTIDEPRESSANT (DESMETHYLIMIPRAMINE) ON NORMAL SUBJECTS.
151304 04-07

RESERPINIZED

THE INFLUENCE OF P-CHLOROPHENYLALANINE ON THE EFFECT OF 5-HYDROXYTRYPTOPHAN ON SPINAL SYNAPTIC ACTIVITY IN CHRONIC SPINAL AND RESERPINIZED CATS.
154959 04-03

RESERVE

PREVENTION OF RESERPINE DEPLETION OF THE CATECHOLAMINE RESERVE WITH FLUORACIZINE.
162922 04-03

RESISTANT

DOUBLE-BLIND COMPARISON OF HALOPERIDOL AND THIORIDAZINE IN TREATMENT RESISTANT PSYCHONEUROTIC OUTPATIENTS.
163337 04-10

RESPIRATION

INHIBITION OF STIMULATED CEREBRAL RESPIRATION IN VITRO AND OXYGEN CONSUMPTION IN VIVO IN RATS TREATED BY CHOLINOLYTIC DRUGS.
156639 04-03

STUDIES ON THE EFFECTS OF PENTAZOCINE ON THE RESPIRATION OF RABBITS.
158483 04-03

RESPIRATORY

SINGLE DOSE EFFECT OF MARIHUANA SMOKE: BRONCHIAL DYNAMICS AND RESPIRATORY CENTER SENSITIVITY IN NORMAL SUBJECTS.
150620 04-13

RESPIRATORY EFFECTS OF HYDROMORPHONE IN MAN.
151156 04-15

RESPONSE

LITHIUM EXCRETION AND THERAPEUTIC RESPONSE.
150314 04-13

SLEEPLESSNESS IN ACUTE AND CHRONIC SCHIZOPHRENIA -- RESPONSE TO HALOPERIDOL AND ANTIPARKINSONISM AGENTS.
150351 04-08

RESPONSE TO TRIIODOTHYRONINE AND DEXTROAMPHETAMINE: A STUDY OF PRESCHOOL SCHIZOPHRENIC CHILDREN.
150432 04-08

EFFECTS OF FOOD DEPRIVATION AND INITIAL LEVELS ON A WHEEL-RUNNING RESPONSE TO METHAMPHETAMINE.
152354 04-03

SCRATCHING RESPONSE INDUCED IN MICE BY MESCALINE AND RELATED AMPHETAMINE DERIVATIVES.
152431 04-04

EXTINCTION OF AVOIDANCE IN RATS: THE EFFECTS OF CHLORPROMAZINE AND METHYLPHENIDATE ADMINISTERED IN CONJUNCTION WITH FLOODING RESPONSE (PREVENTION).
152525 04-04

MODIFICATION OF THE CNS CYCLIC AMP RESPONSE BY DRUGS.
152664 04-03

EFFECTS OF LITHIUM AND AMITRIPTYLINE THERAPY ON SOMATOSENSORY EVOKED RESPONSE EXCITABILITY MEASUREMENTS.
153101 04-13

NEUROMUSCULAR BLOCKING DRUGS AND THE HEART RATE RESPONSE TO DIRECT PREGANGLIONIC STIMULATION OF THE SYMPATHETICS AND PARASYMPATHETICS IN THE CAT.
153171 04-03

PATTERN OF SYMPATHETIC NERVOUS SYSTEM (SNS) DISCHARGE AND THE BLOOD PRESSURE RESPONSE TO FOOTSHOCK IN THE RAT.
153202 04-03

THE EFFECT OF DEXTROAMPHETAMINE ON HABITUATION OF PERIPHERAL VASCULAR RESPONSE IN CHILDREN.
154739 04-14

THE RELATIONSHIP BETWEEN BLOOD LEVELS OF DIFFERENT FORMS OF BUTAPERAZINE AND CLINICAL RESPONSE.
155055 04-08

TRH AND THYROID HORMONES: DOPA RESPONSE AND DOPA METABOLISM.
155253 04-03

T3 AND TSH RESPONSE TO TRH: NEWER ASPECTS OF LITHIUM INDUCED THYROID DISTURBANCE IN MAN.
155255 04-13

CLINICAL RESPONSE TO AMITRIPTYLINE AND CHLORDIAZEPOXIDE AMITRIPTYLINE (LIMBITROL) IN ANXIETY DEPRESSIVE STATES: A DOUBLE-BLIND STUDY.
155887 04-10

DOPA REVERSAL OF HYPOXIA INDUCED DISRUPTION OF THE CONDITIONED AVOIDANCE RESPONSE.
155904 04-04

THE EFFECTS OF CINANSERIN, A POTENT SEROTONIN ANTAGONIST, ON THE ACQUISITION OF A RUNNING RESPONSE IN THE RAT.
156808 04-04

ANTAGONISM BY PROTRIPTYLINE AND DESIPRAMINE OF THE RESPONSE OF THE VAS-DEFERENS OF THE RAT TO NOREPINEPHRINE, ACETYLCHOLINE AND POTASSIUM.
157110 04-03

RAPIDITY OF RESPONSE TO THE TREATMENT OF ENURESIS.
158012 04-13

PREDICTORS OF RESPONSE TO BENZODIAZEPINES IN ANXIOUS OUTPATIENTS.
158286 04-14

AUGMENTATION OF PRESSOR RESPONSE TO CATECHOLAMINE BY N,N DIMETHYLETHYLENEDIAMINES.
158476 04-03

EFFECTS OF CHLORPROMAZINE AND DIAZEPAM ON OPERANT RESPONSE DURATION IN RATS.
158489 04-04

ENTRY AND EXIT FROM TREATMENT: SOME CONSEQUENCES OF PRETREATMENT EXPERIENCE FOR TREATMENT RESPONSE.
160218 04-17

STUDIES ON THE EFFECT OF TRANQUILIZING DRUGS ON THE IMMUNE RESPONSE.
161389 04-05

INTRACELLULAR LITHIUM CONCENTRATION AND CLINICAL RESPONSE: TOWARDS A MEMBRANE THEORY OF DEPRESSION.
161732 04-13

KINETICS AND DYNAMICS OF RESPONSE TO HALOPERIDOL IN ACUTE SCHIZOPHRENIA -- A LONGITUDINAL STUDY OF THE THERAPEUTIC PROCESS.
162869 04-08

AMPHETAMINE-INDUCED DISRUPTION OF TEMPORAL DISCRIMINATION BY RESPONSE DISINHIBITION.
163737 04-03

PREMORBID ASOCIAL ADJUSTMENT AND RESPONSE TO PHENOTHIAZINE TREATMENT AMONG SCHIZOPHRENIC INPATIENTS.
164714 04-08

SEX-ROLE DEVELOPMENT AND RESPONSE TO MEDICATION BY PSYCHIATRIC INPATIENTS.
165189 04-17

RESPONSE THRESHOLD TO L-DOPA IN PSYCHIATRIC PATIENTS.
166068 04-14

CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE: STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER).
166960 04-09

RESPONSES

UNTOWARD RESPONSES TO MEDICATION IN ADOLESCENTS.
149916 04-15

EFFECTS OF CHLORDIAZEPOXIDE UPON SUCCESSIVE RED-GREEN DISCRIMINATION RESPONSES IN JAPANESE MONKEYS, MACACA-FUSCATA.
150325 04-04

ACUTE RESPONSES OF SCHIZOPHRENIC CHILDREN TO A SEDATIVE AND STIMULATING NEUROLEPTIC: A PHARMACOLOGIC YARDSTICK.
152208 04-09

DELTA9-TETRAHYDROCANNABINOL: ELECTROENCEPHALOGRAPHIC CHANGES AND AUTONOMIC RESPONSES IN THE RABBIT.
154970 04-03

PITUITARY AND ANTIDEPRESSANT RESPONSES OF WOMEN TO TRH.
155254 04-13

CHLORPROMAZINE TREATMENT AND GROWTH HORMONE SECRETORY RESPONSES IN ACROMEGALY.
156770 04-11

THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. I. SUBJECTIVE EXPERIENCES.
157343 04-14

THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. II. PITUITARY THYROID RESPONSES.
157344 04-13

DRUG RESPONSES IN DIFFERENT ANXIETY STATES UNDER BENZODIAZEPINE TREATMENT. SOME MULTIVARIATE ANALYSES FOR THE EVALUATION OF RATING SCALE FOR DEPRESSION SCORES.
158285 04-14

PHARMACOLOGICAL STUDIES ON THE HYPOTHALAMUS (REPORT 7). CONDITIONING OF HYPOTHALAMIC BEHAVIORAL RESPONSES AND EFFECTS OF PSYCHOTROPIC DRUGS.
158488 04-04

THE REFLECTION OF EJECTING AND RETAINING CURRENTS IN THE TIME COURSE OF NEURONAL RESPONSES TO MICROELECTROPHORETICALLY APPLIED DRUGS.
158768 04-03

THE EFFECTS OF CHANGES IN IONIC ENVIRONMENT AND MODIFICATION OF ADRENERGIC FUNCTION ON THE VASCULAR RESPONSES TO SYMPATHOMIMETIC AMINES.
158769 04-03

SKIN POTENTIAL ORIENTING RESPONSES IN DRUG TREATED AND NONDRUG TREATED DEPRESSED INPATIENTS.
159395 04-09

RELATIONSHIPS OF CHLORDIAZEPOXIDE BLOOD LEVELS TO PSYCHOLOGICAL AND BIOCHEMICAL RESPONSES.
160477 04-14

EFFECTS OF CHLORPROMAZINE AND PENTOBARBITAL ON PATTERN AND NUMBER OF RESPONSES IN EXTINCTION.
162530 04-04

EFFECT OF CHEMICAL SYMPATHECTOMY ON PRESSOR RESPONSES TO NOREPINEPHRINE, ANGIOTENSIN AND TYRAMINE.
163021 04-03

A DEVICE FOR ANALYZING DRUG-INDUCED RESPONSES IN FREELY MOVING MICE.
165729 04-06

RESTLESS
ACATHISTIC AND TASIKINETIC (MOVING PELVIS) SYNDROMES AND THE RESTLESS LEGS SYNDROME.
150772 04-15

RESTORATION
RESTORATION OF MORPHINE ANALGESIA IN MORPHINE TOLERANT RATS AFTER THE INTRAVENTRICULAR ADMINISTRATION OF 6-HYDROXYDOPAMINE.
158774 04-03

RESTRICTED
MICROIONTOPHORETIC STUDIES OF CONFORMATIONALLY RESTRICTED ANALOGUES OF GAMMA-AMINOBUTYRATE OF RAT HIPPOCAMPAL NEURONS. (UNPUBLISHED PAPER).
151435 04-03

RESUMES
RESUMES OF RESEARCH PROJECTS IN PSYCHOPHARMACOLOGY.
166875 04-17

RETAINING
THE REFLECTION OF EJECTING AND RETAINING CURRENTS IN THE TIME COURSE OF NEURONAL RESPONSES TO MICROELECTROPHORETICALLY APPLIED DRUGS.
158768 04-03

RETARDATION
GROWTH RETARDATION IN YOUNG MICE TREATED WITH DL-METHADONE.
159654 04-03

RETARDED
L-DOPA AND REM SLEEP IN NORMAL AND MENTALLY RETARDED SUBJECTS.
157496 04-14

RETENTION
STERIC ASPECTS OF ADRENERGIC DRUGS XXII: RETENTION OF (_)- AND (-) 14C-NOREPINEPHRINE BY MOUSE HEART.
157302 04-01

EFFECTS OF LYSERGIC ACID DIETHYLAMIDE ON THE UPTAKE AND RETENTION OF BRAIN 5-HYDROXYTRYPTAMINE IN VIVO AND IN VITRO.
160646 04-03

NATURE AND AMPLITUDE OF THE EFFECTS OF ACETOXYCYCLOHEXIMIDE ON THE RETENTION OF AN INSTRUMENTAL TASK IN MICE.
161123 04-04

LITHIUM RETENTION IN MANIA.
162172 04-09

EFFECTS OF PIRACETAM (SKF-38462) ON ACQUISITION, RETENTION, AND ACTIVITY IN THE GOLDFISH.
162276 04-04

RETICULAR
ALTERATION OF CORTICAL AND RETICULAR ACETYLCHOLINE RELEASE BY ETHANOL IN VIVO.
158054 04-03

THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03

RETINA
EFFECT OF 6-HYDROXYDOPAMINE ON DARK ADAPTATION IN THE RAT RETINA.
159569 04-03

RETINAL
PARTICIPATION OF RETINAL MECHANISMS IN DMT HALLUCINATIONS.
163633 04-03

RETRIEVAL
MARIHUANA AND RETRIEVAL FROM SHORT-TERM MEMORY.
153108 04-14

THE RESEARCH PLAN REPORT: REVISED FORM AND INFORMATION RETRIEVAL SYSTEM.
155277 04-17

RETROACTIVE
RETROACTIVE FACILITATION OF MEMORY IN GOLDFISH BY FLUROTHYL.
157036 04-04

RETROGRADE
RETROGRADE STATE-DEPENDENT LEARNING.
153267 04-14

ATTENUATION OF HYPOTHERMIC RETROGRADE AMNESIA PRODUCED BY PHARMACOLOGIC BLOCKAGE OF BRAIN SEIZURES.
157125 04-04

REVERSAL
DOPAMINE AND NORADRENALINE RECEPTOR STIMULATION: REVERSAL OF RESERPINE INDUCED SUPPRESSION OF MOTOR ACTIVITY.
150664 04-03

DOPA REVERSAL OF HYPOXIA INDUCED DISRUPTION OF THE CONDITIONED AVOIDANCE RESPONSE.
155904 04-04

EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING.
158000 04-04

AGONISTIC PROPERTIES OF NARCOTIC ANALGESICS AND ANTAGONISTS ON THE ELECTROENCEPHALOGRAM AND BEHAVIOR IN THE RAT AND THEIR REVERSAL BY NALOXONE.
160634 04-03

THE EFFECTS OF METHYLPHENIDATE (RITALIN) UPON PERFORMANCE IN THE SUCCESSIVE DISCRIMINATION REVERSAL SITUATION. (PH.D. DISSERTATION).
163119 04-04

RITALIN AS THE INDEPENDENT VARIABLE IN A REVERSAL DESIGN. (PH.D. DISSERTATION).
163512 04-16

ADRENERGIC RECEPTOR ROLES IN EPINEPHRINE REVERSAL BY CHLORPROMAZINE. (PH.D. DISSERTATION).
165680 04-03

PUNISHMENT OF SACCHARIN DRINKING BY AMPHETAMINE IN RATS AND ITS REVERSAL BY CHLORDIAZEPOXIDE.
166165 04-04

REVERSIBILITY
THE REVERSIBILITY OF SIDE-EFFECTS OF GUANETHIDINE THERAPY.
160939 04-05

EFFECTS OF D-AMPHETAMINE ON THE INCORPORATION OF CARBON ATOMS OF D-MANNOSE INTO THE BRAINS AND SERA OF DIFFERENTIALLY HOUSED MICE: SHORT-TERM REVERSIBILITY OF THESE EFFECTS.
163779 04-03

REVERSIBLE
REVERSIBLE TOXIC PSYCHOSIS AFTER CEPHALEXIN.
156754 04-15

REVIEW
LITERATURE REVIEW AND PROPOSAL FOR LITHIUM PROPHYLAXIS STUDIES.
150438 04-09

THE IMPORTANCE OF DOSAGE IN ANTIPSYCHOTIC DRUG ADMINISTRATION -- A REVIEW OF DOSE-RESPONSE STUDIES.
153096 04-08

DRUG-INDUCED ATTENUATION OF ALCOHOL CONSUMPTION: A REVIEW AND EVALUATION OF CLAIMED, POTENTIAL OR CURRENT THERAPIES.
154690 04-11

RECENT RESEARCH ON OPIATE ADDICTION -- REVIEW OF A NATIONAL PROGRAM.
155240 04-17

LYSERGIC ACID DIETHYLAMIDE: ITS EFFECTS ON HUMAN CHROMOSOMES AND THE HUMAN ORGANISM IN UTERO. A REVIEW OF CURRENT FINDINGS.
156527 04-15

REVIEW OF BEHAVIORAL TECHNIQUES.
163647 04-11

REVIEW OF MEDICINE IN SPECIAL EDUCATION. DRUG RESEARCH: OUT OF SIGHT, OUT OF MIND.
166484 04-17

CLINICAL PHARMACOLOGY OF SLEEP: A CRITICAL REVIEW OF ALL-NIGHT ELECTROENCEPHALOGRAPHIC STUDIES.
166734 04-08

REVISED
THE RESEARCH PLAN REPORT: REVISED FORM AND INFORMATION RETRIEVAL SYSTEM.
155277 04-17

REWARD
STUDY OF ANTIANXIETY EFFECTS OF DRUGS IN THE RAT, WITH A MULTIPLE PUNISHMENT AND REWARD SCHEDULE.
158282 04-04

RHESUS
SELF-ADMINISTRATION OF ACETYLSALICYLIC ACID AND COMBINATIONS WITH CODEINE AND CAFFEINE IN RHESUS MONKEYS.
157064 04-04

THE EFFECTS OF STIMULANTS AND DEPRESSANTS ON COCAINE SELF-ADMINISTRATION BEHAVIOR IN THE RHESUS MONKEY. 157998 04-04

RHEUMATOID
DOUBLE-BLIND TRIAL OF DIAZEPAM IN RHEUMATOID ARTHRITIS. 158353 04-17

RHYTHM
SOME OBSERVATIONS ON THE CIRCADIAN RHYTHM OF LOCOMOTOR ACTIVITY OF MICE AFTER DEPLETION OF CEREBRAL MONOAMINES. 158002 04-03
DIURNAL RHYTHM IN BEHAVIORAL EFFECTS OF METHAMPHETAMINE, P-CHLOROMETHAMPHETAMINE AND SCOPOLAMINE. 159366 04-04

RHYTHMS
CIRCADIAN RHYTHMS OF DRUG EFFECTIVENESS AND TOXICITY. 166719 04-13

RIGIDITY
RIGIDITY, HYPERPYREXIA AND COMA FOLLOWING FLUPHENAZINE ENANTHATE. 150669 04-15

RISKS
RISKS VS. BENEFITS OF ANTIPSYCHOTIC DRUGS. 158176 04-15

RITALIN
REDUCTION OF HYPERACTIVE BEHAVIOR BY CONDITIONING PROCEDURES ALONE AND COMBINED WITH METHYLPHENIDATE (RITALIN). 161049 04-14
EFFECTS OF RITALIN ON HYPERKINETIC CHILDREN ATTENDING THE GLENDALE ELEMENTARY SCHOOLS. (ED.D. DISSERTATION). 162069 04-11
THE EFFECTS OF METHYLPHENIDATE (RITALIN) UPON PERFORMANCE IN THE SUCCESSIVE DISCRIMINATION REVERSAL SITUATION. (PH.D. DISSERTATION). 163119 04-04
RITALIN AS THE INDEPENDENT VARIABLE IN A REVERSAL DESIGN. (PH.D. DISSERTATION). 163512 04-16

RNA
THE EFFECT OF GEROVITAL-H3 ON THE GROWTH RATE OF AGED MOUSE EMBRYO FIBROBLASTS AND ON THE PATHOGENESIS INDUCED BY A RNA C-TYPE VIRUS. 166387 04-03
INHIBITION OF URIDINE INCORPORATION INTO RNA IN MAMMALIAN CELLS BY AGENTS AFFECTING THE PROPERTIES OF THE CELL MEMBRANE: CHLORPROMAZINE, DIPYRIDAMOLE AND PHENYLETHANOL. 166700 04-03
EFFECT OF MORPHINE ON THE RNA AND ATP CONCENTRATION OF BRAIN STRUCTURES OF THE RAT. 167043 04-03

RO-4-4602
TREATMENT OF PARKINSONISM WITH A COMBINATION OF LEVODOPA AND THE DECARBOXYLASE INHIBITOR RO-4-4602 (A COMPARISON WITH LEVODOPA TREATMENT ALONE). 151689 04-07
TREATMENT OF PARKINSONISM WITH A COMPOUND OF L-DOPA (LARODOPA) AND A DECARBOXYLASE INHIBITOR (RO-4-4602). 151691 04-11
BLOOD-BRAIN BARRIER TO CARBIDOPA (MK-486) AND RO-4-4602, PERIPHERAL DOPA DECARBOXYLASE INHIBITORS. 155906 04-03

RO-5-3350
PRELIMINARY REPORT TREATMENT WITH RO-5-3350 ON AMBULATORY NEUROTIC PATIENTS. 151947 04-07

RO-5-4023
EXPERIMENTAL AND CLINICAL STUDIES OF THE ANTICONVULSANT PROPERTIES OF A BENZODIAZEPINE DERIVATIVE, CLONAZEPAM (RO-5-4023). 158291 04-13

RO-5-4200
SLEEP LABORATORY AND CLINICAL STUDIES OF THE EFFECTS OF BENZODIAZEPINES ON SLEEP: FLURAZEPAM, DIAZEPAM, CHLORDIAZEPOXIDE, AND RO-5-4200. 158299 04-14
FLUNITRAZEPAM (RO-5-4200) AND SLEEP CYCLE IN NORMAL SUBJECTS. 163773 04-14

RODENT
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) ON SEVERAL RODENT LEARNING PARADIGMS. 167040 04-04

RODENTS
THE EFFECTS OF THYROID STATE ON THE ACTION AND DISPOSITION OF PHENOTHIAZINES IN RODENTS. 155259 04-03
EFFECTS OF CHOLINERGIC DRUGS ON PREY KILLING BY RODENTS. 157136 04-04

ROLE
ROLE OF MONOAMINES IN THE PSYCHOPATHOLOGY OF MOTORICITY: IMPLICATED NEURAL CIRCUITS IN THE PSYCHOPATHOLOGY OF PARKINSONIAN SYNDROMES. 150219 04-11
THE POSSIBLE ROLE OF TRYPTAMINE IN BRAIN FUNCTION AND ITS RELATIONSHIP TO THE ACTIONS OF LSD-LIKE HALLUCINOGENS. (UNPUBLISHED PAPER). 151656 04-03
ROLE OF BETA-ADRENERGIC RECEPTOR IN THE CONTROL OF SEROTONIN N-ACETYLTRANSFERASE IN RAT PINEAL. (UNPUBLISHED PAPER). 154368 04-03
THE ROLE OF DOPAMINE AND NOREPINEPHRINE IN THE NALOXONE INDUCED ABSTINENCE OF MORPHINE DEPENDENT MICE. 157116 04-03
THE ROLE OF STRESS IN PASSIVE AVOIDANCE TASKS. (PH.D. DISSERTATION). 159175 04-17
ROLE OF BRAIN 5-HYDROXYTRYPTAMINE IN AUDIOGENIC SEIZURE IN THE RAT. 159565 04-03
THE ROLE OF BIOGENIC AMINES IN THE RESERPINE INDUCED ALTERATION OF MINIMAL ELECTROSHOCK SEIZURE THRESHOLDS IN THE MOUSE. 160639 04-03
ROLE OF CONSULTATION PSYCHIATRY IN TEACHING PSYCHOPHARMACOLOGY IN THE GENERAL HOSPITAL. 161595 04-17
ROLE OF ADRENAL HORMONES IN INCUBATION BEHAVIOR OF MALE RING DOVES (STREPTOPELIA-RISORIA). 162667 04-03
PSYCHOTROPIC DRUGS IN USE TODAY: THE ROLE OF DIAZEPAM IN MEDICAL PRACTICE. 163165 04-17

ROLES
ADRENERGIC RECEPTOR ROLES IN EPINEPHRINE REVERSAL BY CHLORPROMAZINE. (PH.D. DISSERTATION). 165680 04-03

ROOT
EFFECT OF GINSENOSIDE-RGL, A SAPONIN OF PANAX GINSENG ROOT, ON LEARNING AND MEMORY IN RATS. 158490 04-04

ROUTE
VEHICLE AND ROUTE OF ADMINISTRATION AS PARAMETERS AFFECTING OPERANT BEHAVIORAL EFFECTS OF DELTA9-TETRAHYDROCANNABINOL. 150414 04-04

RULES
TIGHT NEW RULES FOR METHAQUALONE. 167120 04-17

RUNYONII
CACTUS ALKALOIDS XV: BETA-PHENETHYLAMINE DERIVATIVES FROM CORYPHANTHA-MACROMERIS VAR. RUNYONII. 150411 04-01

RUSSIA
FOUR NEW DRUG DEVELOPMENTS FROM DENMARK, RUSSIA, AND WEST GERMANY. 155275 04-14

S-TRIAZOLOBENZODIAZEPINE
EFFECTS OF NEW S-TRIAZOLOBENZODIAZEPINE (D-40TA) AND OTHER CENTRAL MUSCLE RELAXANTS ON SPINAL AND SUPRASPINAL REFLEXES IN CATS. 163798 04-03

S-1530
STUDIES ON IN VIVO METABOLISM OF NIMETAZEPAM (S-1530) IN MICE & RATS. 158478 04-03

S-804
THE EFFECT OF MEDAZEPAM (S-804) ON THE PHOTOPALPEBRAL REFLEX. 166941 04-13

SACCHARIN
MORPHINE INDUCED SACCHARIN AVERSION IN ALPHA-METHYLTYROSINE PRETREATED RATS. 162279 04-03
PUNISHMENT OF SACCHARIN DRINKING BY AMPHETAMINE IN RATS AND ITS REVERSAL BY CHLORDIAZEPOXIDE. 166165 04-04

SAFETY
THE EFFECTS OF DOXEPIN, ALONE AND TOGETHER WITH ALCOHOL, IN RELATION TO DRIVING SAFETY. 155841 04-14

SALICYLATES
DETERMINATION OF TOTAL SALICYLATES, PHENACETIN AND/OR TOTAL N-ACETYL-P-AMINOPHENOL, AND CAFFEINE IN BIOLOGICAL SAMPLES AND ANALGESIC FORMULATIONS. 150410 04-01
CLINICAL TOXICOLOGY VII. POISONING BY SALICYLATES, PARACETAMOL, TRICYCLIC ANTIDEPRESSANTS AND A MISCELLANY OF DRUGS. 159588 04-15

SALINE
OPIATE DEPENDENCE PRODUCED BY AD LIBITUM DRINKING OF MORPHINE IN WATER, SALINE, AND SUCROSE VEHICLES.
157147 04-04
TRANSFER OF STATE-DEPENDENT CONTROL OF DISCRIMINATIVE BEHAVIOUR BETWEEN SUBCUTANEOUSLY AND INTRAVENTRICULARLY ADMINISTERED NICOTINE AND SALINE.
163771 04-04

SALIVARY
APPLICATION OF PRINCIPLES OF STEADY-STATE KINETICS TO MEASURE ACETYLCHOLINE TURNOVER RATE IN RAT SALIVARY GLANDS: EFFECT OF DEAFFERENTATION AND DUCT LIGATION.
163763 04-03

SALTS
OBSERVATIONS ON THE USE OF LITHIUM SALTS IN ASSOCIATION WITH PSYCHOTROPIC DRUGS.
151265 04-09

SAMOA
PHARMACOLOGICAL EVALUATION OF MEDICINAL PLANTS FROM WESTERN SAMOA.
157300 04-17

SAMPLES
DETERMINATION OF TOTAL SALICYLATES, PHENACETIN AND/OR TOTAL N-ACETYL-P-AMINOPHENOL, AND CAFFEINE IN BIOLOGICAL SAMPLES AND ANALGESIC FORMULATIONS.
150410 04-01

SAPONIN
EFFECT OF GINSENOSIDE-RGL, A SAPONIN OF PANAX GINSENG ROOT, ON LEARNING AND MEMORY IN RATS.
158490 04-04

SATIATION
COMPARISON OF CHLORDIAZEPOXIDE AND FOOD DEPRIVATION IN RATS ON A FIXED-RATIO SATIATION SCHEDULE.
153599 04-04

SBS
EFFECTS OF PSYCHOTROPIC DRUGS ON SEGMENTAL SPINAL REFLEX AND SPINO-BULBO-SPINAL (SBS) REFLEX.
158509 04-03

SCALE
DRUG RESPONSES IN DIFFERENT ANXIETY STATES UNDER BENZODIAZEPINE TREATMENT. SOME MULTIVARIATE ANALYSES FOR THE EVALUATION OF RATING SCALE FOR DEPRESSION SCORES.
158285 04-14

SCAVENGER
ON THE USE OF ETHANOL AS A SCAVENGER IN STORING LABELLED DOPA AND 5-HYDROXYTRYPTAMINE IN AQUEOUS SOLUTIONS.
156806 04-06

SCHEDULE
COMPARISON OF CHLORDIAZEPOXIDE AND FOOD DEPRIVATION IN RATS ON A FIXED-RATIO SATIATION SCHEDULE.
153599 04-04
FIXED-INTERVAL SCHEDULE OF COCAINE REINFORCEMENT: EFFECT OF DOSE AND INFUSION DURATION.
155411 04-04
ACQUISITION AND LOSS OF TOLERANCE TO 1 DELTA9-TRANS-TETRAHYDROCANNABINOL IN RATS ON AN AVOIDANCE SCHEDULE.
157039 04-04
EFFECTS OF D-AMPHETAMINE ON SCHEDULE CONTROLLED KEY PRESSING AND DRINKING IN THE CHIMPANZEE.
157119 04-04
EFFECTS OF METHAMPHETAMINE AND CHLORDIAZEPOXIDE ON SCHEDULE CONTROLLED AND ADJUNCTIVE LICKING IN THE RAT.
157156 04-04
STUDY OF ANTIANXIETY EFFECTS OF DRUGS IN THE RAT, WITH A MULTIPLE PUNISHMENT AND REWARD SCHEDULE.
158282 04-04

SCHEDULES
FIXED-INTERVAL SCHEDULES OF INTRAVENOUS COCAINE PRESENTATION IN RATS.
155410 04-04
COMPARABLE BEHAVIOR MAINTAINED UNDER FIXED-RATIO AND SECOND-ORDER SCHEDULES OF FOOD PRESENTATION, COCAINE INJECTION OR D-AMPHETAMINE INJECTION IN THE SQUIRREL MONKEY.
159367 04-04

SCHEDULING
IMPROVING SCHEDULING AND REDUCING COSTS OF PSYCHOTROPIC DRUGS FOR OUTPATIENTS.
157291 04-17

SCHIZOPHRENIA
SLEEPLESSNESS IN ACUTE AND CHRONIC SCHIZOPHRENIA -- RESPONSE TO HALOPERIDOL AND ANTIPARKINSONISM AGENTS.
150351 04-08
THE EFFECT OF PHARMACOLOGIC TREATMENT ON ASSOCIATION DISTURBANCES IN SCHIZOPHRENIA.
150745 04-08
A LONG-TERM PILOT STUDY OF PIPOTHIAZINE PALMITATE IN CHRONIC SCHIZOPHRENIA.
150832 04-08
ORTHOMOLECULAR PSYCHIATRY: TREATMENT OF SCHIZOPHRENIA.
150971 04-08
RESULTS OF STUDY OF SEVERAL ASPECTS OF SUPPORTIVE PSYCHOPHARMACOTHERAPY IN SCHIZOPHRENIA.
151768 04-08
MESORIDAZINE VERSUS CHLORPROMAZINE IN ACUTE SCHIZOPHRENIA: A DOUBLE-BLIND INVESTIGATION.
152708 04-08
SKIN CONDUCTANCE BASAL LEVEL AND REACTIVITY IN SCHIZOPHRENIA AS A FUNCTION OF CHRONICITY, PREMORBID ADJUSTMENT, DIAGNOSIS, AND MEDICATION.
154170 04-08
ABNORMAL O-METHYLATED DOPAMINE METABOLITES: THE ENDOGENOUS TOXINS OF SCHIZOPHRENIA OR PARKINSONISM
155905 04-13
COMPARATIVE TRIAL OF IMICLOPAZINE, TPN-12 PIMOZIDE AND TRIFLUPERIDOL IN SCHIZOPHRENIA.
156563 04-08
EFFECTS OF TPN-12 SANDOZ IN SCHIZOPHRENIA.
156564 04-08
ON THE USE OF ARMINE IN THE QUALITY OF PSYCHOSTIMULATING DRUGS IN SCHIZOPHRENIA.
156589 04-08
TREATMENT OF ACUTE SCHIZOPHRENIA WITH MOLINDONE.
156643 04-08
A DOUBLE-BLIND COMPARISON OF HALOPERIDOL ORAL CONCENTRATE, HALOPERIDOL SOLUTABS AND PLACEBO IN THE TREATMENT OF CHRONIC SCHIZOPHRENIA.
156939 04-08
DMT -- A POSSIBLE RELATIONSHIP TO SCHIZOPHRENIA. (UNPUBLISHED PAPER).
158587 04-08
PSYCHOPHARMACOLOGICAL STUDY OF SCHIZOPHRENIA -- SOME WAYS OUT OF AN IMPASSE.
160219 04-17
KINETICS AND DYNAMICS OF RESPONSE TO HALOPERIDOL IN ACUTE SCHIZOPHRENIA -- A LONGITUDINAL STUDY OF THE THERAPEUTIC PROCESS.
162869 04-08
A COMPARATIVE TRIAL OF HALOPERIDOL AND THIORIDAZINE: MANAGEMENT OF CHRONIC SCHIZOPHRENIA.
165621 04-08
SYMPOSIUM: NEW THERAPEUTIC APPROACH TO SCHIZOPHRENIA.
165728 04-08
A CONTROLLED COMPARISON OF METIAPINE AND CHLORPROMAZINE IN CHRONIC SCHIZOPHRENIA.
166718 04-08
NEUROLEPTIC TREATMENT OF SCHIZOPHRENIA.
166975 04-08

SCHIZOPHRENIAS
BLOOD HISTAMINE, BASOPHIL COUNTS, AND TRACE ELEMENTS IN THE SCHIZOPHRENIAS.
150964 04-08

SCHIZOPHRENIC
RESPONSE TO TRIIODOTHYRONINE AND DEXTROAMPHETAMINE: A STUDY OF PRESCHOOL SCHIZOPHRENIC CHILDREN.
150432 04-08
A SINGLE-BLIND EVALUATION OF THIOTHIXENE WITH OUTPATIENT SCHIZOPHRENIC CHILDREN.
150434 04-08
A CONTROLLED DOUBLE-BLIND COMPARISON BETWEEN LOXAPINE SUCCINATE AND CHLORPROMAZINE IN ACUTE NEWLY HOSPITALIZED SCHIZOPHRENIC PATIENTS.
150835 04-08
ACUTE RESPONSES OF SCHIZOPHRENIC CHILDREN TO A SEDATIVE AND STIMULATING NEUROLEPTIC: A PHARMACOLOGIC YARDSTICK.
152208 04-08
T3 ALONE IN SCHIZOPHRENIC CHILDREN.
155258 04-08
LONG-ACTING PHENOTHIAZINES IN THE PREVENTION OF RELAPSE OF SCHIZOPHRENIC PATIENTS.
155525 04-08
RELATIONSHIP OF CLINICAL AND DEMOGRAPHIC VARIABLES TO COMMUNITY ADJUSTMENT OF SCHIZOPHRENIC OUTPATIENTS ON CHEMOTHERAPY. (ED. D. DISSERTATION).
158779 04-08
THE CASE FOR REPORTING THE DRUG STATUS OF PATIENT SUBJECTS IN EXPERIMENTAL STUDIES OF SCHIZOPHRENIC PSYCHOPATHOLOGY.
159043 04-06
RESULTS OF THE EFFECTS OF FLUSPIRILENE ON CHRONIC SCHIZOPHRENIC PATIENTS UNDERGOING OCCUPATIONAL THERAPY.
160216 04-08
LOXAPINE: A SIX-MONTH EVALUATION IN SEVERELY ILL SCHIZOPHRENIC PATIENTS.
163680 04-08
BEHAVIORAL EFFECTS OF L-DOPA IN SCHIZOPHRENIC PATIENTS.
163754 04-08

PREMORBID ASOCIAL ADJUSTMENT AND RESPONSE TO PHENOTHIAZINE TREATMENT AMONG SCHIZOPHRENIC INPATIENTS.
164714 04-08

SCHIZOPHRENICS
HEATSTROKE IN THREE CHRONIC SCHIZOPHRENICS: CASE REPORTS AND CLINICAL CONSIDERATIONS.
153273 04-15

FLUPHENAZINE DECANOATE TRIAL IN CHRONIC INPATIENT SCHIZOPHRENICS FAILING TO ABSORB ORAL CHLORPROMAZINE.
156741 04-08

PHENOTHIAZINE EFFECTS IN GOOD PREMORBID SCHIZOPHRENICS DIVIDED INTO PARANOID NONPARANOID STATUS.
162169 04-08

OUTPATIENT MANAGEMENT OF CHRONIC SCHIZOPHRENICS WITH FLUPHENAZINE ENANTHATE (PROLIXIN ENANTHATE): A CLINICAL EVALUATION.
164217 04-08

LONG-TERM USE OF MOLINDONE IN SCHIZOPHRENICS.
166715 04-08

CRITICAL REFLECTIONS CONCERNING PSYCHOPHARMACOLOGICAL TREATMENT OF SCHIZOPHRENICS.
166977 04-08

SCHOOL
HELP FOR THE HYPERKINETIC CHILD IN SCHOOL.
158345 04-11

SCHOOLS
EFFECTS OF RITALIN ON HYPERKINETIC CHILDREN ATTENDING THE GLENDALE ELEMENTARY SCHOOLS. (ED.D. DISSERTATION).
162069 04-11

SCIENTIFIC
A SCIENTIFIC RATIONALE FOR CHOOSING PATIENTS RATHER THAN NORMAL SUBJECTS FOR PHASE I STUDIES.
167107 04-14

SCIENTISTS
DISCUSSION OF A SURVEY OF ACADEMIC AND INDUSTRIAL SCIENTISTS ON TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167109 04-17

SCISSION
UREIDE RING SCISSION OF PHENOBARBITAL BY SODIUM BOROHYDRIDE.
150418 04-01

SCLEROSIS
SECURININE: A CENTRAL NERVOUS SYSTEM STIMULANT IS USED IN THE TREATMENT OF AMYTROPHIC LATERAL SCLEROSIS.
150425 04-11

THE RELEVANCE OF IMMUNOLOGIC STUDIES ON EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS (EAE) TO CLINICAL INVESTIGATIONS ON MULTIPLE SCLEROSIS. (UNPUBLISHED PAPER).
152545 04-03

SCOPOLAMINE
THE EFFECTS OF SCOPOLAMINE ON PREEXPOSURE TO A LEARNING APPARATUS.
151224 04-04

EFFECT OF SCOPOLAMINE ON THE CEREBRAL ACCUMULATION OF 14C-CATECHOLAMINES FROM 14C-TYROSINE.
151907 04-03

EXPLORATORY ACTIVITY: GENETIC ANALYSIS OF ITS MODIFICATION BY SCOPOLAMINE AND AMPHETAMINE.
157099 04-04

DIURNAL RHYTHM IN BEHAVIORAL EFFECTS OF METHAMPHETAMINE, P-CHLOROMETHAMPHETAMINE AND SCOPOLAMINE.
159366 04-04

SCORES
DRUG RESPONSES IN DIFFERENT ANXIETY STATES UNDER BENZODIAZEPINE TREATMENT. SOME MULTIVARIATE ANALYSES FOR THE EVALUATION OF RATING SCALE FOR DEPRESSION SCORES.
158285 04-14

SCOTOPHOBIN
SYNTHESIS OF SCOTOPHOBIN. A MEMORY CODE WORD.
156872 04-01

SCRATCHING
SCRATCHING RESPONSE INDUCED IN MICE BY MESCALINE AND RELATED AMPHETAMINE DERIVATIVES.
152431 04-04

SCREENING
CENTRAL NERVOUS ACTIONS AND SCREENING METHODS OF ANTIDEPRESSANTS.
150397 04-03

INACTIVITY OF DELTA9-TETRAHYDROCANNABINOL IN ANTIDEPRESSANT SCREENING TESTS.
157142 04-03

SEARCH
SEARCH FOR NEW HALLUCINOGENIC CACTI.
156875 04-01

THE PLACE OF ETHNOBOTANY IN THE ETHNOPHARMACOLOGIC SEARCH FOR PSYCHOTOMIMETIC DRUGS.
158626 04-17

SECOND-ORDER
COMPARABLE BEHAVIOR MAINTAINED UNDER FIXED-RATIO AND SECOND-ORDER SCHEDULES OF FOOD PRESENTATION, COCAINE INJECTION OR D-AMPHETAMINE INJECTION IN THE SQUIRREL MONKEY.
159367 04-04

SECRETION
FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION.
150424 04-03

CHILDHOOD ACROMEGALY: SUCCESSFUL THERAPY WITH CONVENTIONAL RADIATION AND EFFECTS OF CHLORPROMAZINE ON GROWTH HORMONE AND PROLACTIN SECRETION.
160653 04-13

SECRETORY
CHLORPROMAZINE TREATMENT AND GROWTH HORMONE SECRETORY RESPONSES IN ACROMEGALY.
156770 04-11

SECURININE
SECURININE: A CENTRAL NERVOUS SYSTEM STIMULANT IS USED IN THE TREATMENT OF AMYTROPHIC LATERAL SCLEROSIS.
150425 04-11

SEDATION
AUTONOMIC CORRELATES OF THE SEDATION THRESHOLD.
155526 04-13

SEDATIVE
THE INTERACTION OF DELTA9-TETRAHYDROCANNABINOL PRETREATMENT WITH VARIOUS SEDATIVE HYPNOTIC DRUGS.
150302 04-04

ACUTE RESPONSES OF SCHIZOPHRENIC CHILDREN TO A SEDATIVE AND STIMULATING NEUROLEPTIC: A PHARMACOLOGIC YARDSTICK.
152208 04-08

EFFECT OF VARIOUS SEDATIVE DRUGS ON LEVELS OF CHOLINE AND ACETYLCHOLINE AND ON TURNOVER RATE OF ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
162398 04-03

SEDATIVES
MINOR TRANQUILIZERS, HYPNOTICS, AND SEDATIVES.
155058 04-17

POISONING BY THE BARBITURATES, AND A VARIETY OF HYPNOTICS AND SEDATIVES.
155753 04-15

SEGMENTAL
EFFECTS OF PSYCHOTROPIC DRUGS ON SEGMENTAL SPINAL REFLEX AND SPINO-BULBO-SPINAL (SBS) REFLEX.
158509 04-03

SEIZURE
ACUTE AND CHRONIC EFFECTS OF D- AND L-AMPHETAMINE ON SEIZURE SUSCEPTIBILITY IN MICE.
156821 04-03

ROLE OF BRAIN 5-HYDROXYTRYPTAMINE IN AUDIOGENIC SEIZURE IN THE RAT.
159565 04-03

THE ROLE OF BIOGENIC AMINES IN THE RESERPINE INDUCED ALTERATION OF MINIMAL ELECTROSHOCK SEIZURE THRESHOLDS IN THE MOUSE.
160639 04-03

PSYCHOACTIVE COMPOUNDS AND AUDIOGENIC SEIZURE SUSCEPTIBILITY.
160770 04-03

DELTA9-TETRAHYDROCANNABINOL EFFECT ON AUDIOGENIC SEIZURE SUSCEPTIBILITY.
162273 04-03

ELEVATION OF LIDOCAINE SEIZURE THRESHOLD BY GALLAMINE.
163313 04-03

EFFECT OF LITHIUM CARBONATE AND ALPHA-METHYL-P-TYROSINE ON AUDIOGENIC SEIZURE INTENSITY.
163803 04-03

REDUCTION OF AUDIOGENIC SEIZURE BY DELTA8- AND DELTA9-TETRAHYDROCANNABINOLS.
166001 04-04

SEIZURES
THE INFLUENCE OF SOUND PRESSURE LEVEL UPON THE POTENCY OF PHENOBARBITONE SODIUM AND MEPROBAMATE AGAINST AUDIOGENIC SEIZURES IN MICE.
151591 04-04

ATTENUATION OF HYPOTHERMIC RETROGRADE AMNESIA PRODUCED BY PHARMACOLOGIC BLOCKAGE OF BRAIN SEIZURES.
157125 04-04

EFFECTS OF CHRONIC ADMINISTRATION OF BENZODIAZEPINES ON EPILEPTIC SEIZURES AND BRAIN ELECTRICAL ACTIVITY IN PAPIO-PAPIO.
158290 04-03

EFFECTS OF SOME CHOLINERGIC, ADRENERGIC AND SEROTONINERGIC COMPOUNDS, GLUTAMIC ACID AND GABA ON HIPPOCAMPAL SEIZURES.
161963 04-03

EFFECTS OF L-DOPA AND L-3-METHOXYTYROSINE ON D-METHAMPHETAMINE INDUCED MOTOR ACTIVITY AND SEIZURES INDUCED BY ELECTROSHOCK (37475).
162046 04-03

OLFACTORY FOREBRAIN SEIZURES INDUCED BY METHAMPHETAMINE AND DISULFIRAM.
166064 04-03

SELECTIVE

EFFECTS OF INTRACEREBRAL INJECTIONS OF 5,6 DIHYDROXYTRYPTAMINE ON CENTRAL MONOAMINE NEURONS: EVIDENT FOR SELECTIVE DEGENERATION OF CENTRAL 5-HYDROXYTRYPTAMINE NEURONS.
162894 04-03

DECREASED ANTINOCICEPTIVE ACTIVITY OF MORPHINE IN RATS PRETREATED INTRAVENTRICULARLY WITH 5,6 DIHYDROXYTRYPTAMINE, A LONG-LASTING SELECTIVE DEPLETOR OF BRAIN SEROTONIN.
163775 04-03

SELECTIVITY

EFFECTS OF (-)DELTA9-TRANS-TETRAHYDROCANNABINOL AND ITS SELECTIVITY IN SEVERAL MODELS OF AGGRESSIVE BEHAVIOR.
161962 04-04

SELF-ADMINISTER

MORPHINE, PROPRANOLOL AND THEIR INTERACTION IN MONKEYS TRAINED TO SELF-ADMINISTER DRUGS. (UNPUBLISHED PAPER).
158321 04-04

SELF-ADMINISTERED

SIDE-EFFECTS OF HYPOTENSIVE AGENTS EVALUATED BY A SELF-ADMINISTERED QUESTIONNAIRE.
162720 04-13

SELF-ADMINISTRATION

ALPHA-METHYLTYROSINE TO PREVENT SELF-ADMINISTRATION OF MORPHINE AND AMPHETAMINE.
152213 04-04

SOME CORRELATES OF MARIHUANA SELF-ADMINISTRATION IN MAN: A STUDY OF TITRATION OF INTAKE AS A FUNCTION OF DRUG POTENCY.
153100 04-13

DRUG-INDUCED REINSTATEMENT OF AMPHETAMINE SELF-ADMINISTRATION BEHAVIOUR IN MONKEYS.
154210 04-04

SELF-ADMINISTRATION OF ACETYLSALICYLIC ACID AND COMBINATIONS WITH CODEINE AND CAFFEINE IN RHESUS MONKEYS.
157064 04-04

THE EFFECTS OF STIMULANTS AND DEPRESSANTS ON COCAINE SELF-ADMINISTRATION BEHAVIOR IN THE RHESUS MONKEY.
157998 04-04

SELF-ADMINISTRATION OF OPTICAL ISOMERS OF AMPHETAMINE AND METHYLAMPHETAMINE BY RATS.
163766 04-04

SELF-STIMULATION

INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04

THE EFFECTS OF 6-HYDROXYDOPAMINE, DOPAMINE AND DL-NOREPINEPHRINE ON FOOD INTAKE AND WATER CONSUMPTION, SELF-STIMULATION, TEMPERATURE AND ELECTROENCEPHALOGRAPHIC ACTIVITY IN THE RAT.
150352 04-04

NORADRENERGIC AND CHOLINERGIC ACTION ON NEURONAL ACTIVITY DURING SELF-STIMULATION BEHAVIOR IN THE RAT.
156810 04-04

METHAMPHETAMINE LOWERS SELF-STIMULATION THRESHOLDS.
157083 04-04

THE EFFECT OF FOCALLY ADMINISTERED DRUGS ON SELF-STIMULATION OF THE VENTRAL TEGMENTAL AREA IN RATS. (PH.D. DISSERTATION).
160896 04-04

THE EFFECT OF ALPHA-ADRENERGIC AND BETA-ADRENERGIC ANTAGONISTS ON THE SELF-STIMULATION PHENOMENON.
166787 04-04

SENILE

BIOCHEMICAL OBSERVATIONS DURING A TRIAL OF INOSIPLEX IN SENILE DEMENTIA.
156134 04-09

GLUTATHIONE THERAPY OF EARLY SENILE DEMENTIA.
166908 04-09

SENIUM

THIOTHIXENE IN THE TREATMENT OF DISEASES OF THE SENIUM.
152210 04-07

SENSITIVE

DOPAMINE SENSITIVE ADENYLATE CYCLASE: THE DOPAMINE RECEPTOR IN THE MAMMALIAN NERVOUS SYSTEM. (PH.D. DISSERTATION).
159484 04-01

CONVULSIONS ELICITED BY HANDLING: A SENSITIVE METHOD OF MEASURING CNS EXCITATION IN MICE TREATED WITH RESERPINE OR CONVULSANT DRUGS.
163748 04-03

SENSITIVITY

DECREASED SENSITIVITY OF SEPTAL MICE TO IMPAIRMENT OF TWO-WAY AVOIDANCE BY CHLORPROMAZINE.
150350 04-04

SINGLE DOSE EFFECT OF MARIHUANA SMOKE: BRONCHIAL DYNAMICS AND RESPIRATORY CENTER SENSITIVITY IN NORMAL SUBJECTS.
150620 04-13

AUDITORY SENSITIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL SENSORY ACTIVITY AND SPONTANEOUS MOTOR ACTIVITY.
158487 04-03

POSSIBLE SENSITIVITY TO MEPERIDINE IN PHENYLKETONURIA.
160147 04-15

SENSORIMOTOR

SENSORIMOTOR COORDINATION IN PARKINSONS DISEASE BEFORE AND AFTER LEVODOPA THERAPY.
163805 04-13

SENSORY

SPONTANEOUS MOTOR ACTIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL MOTOR ACTIVITY AND SENSORY ACTIVITY.
158486 04-04

AUDITORY SENSITIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL SENSORY ACTIVITY AND SPONTANEOUS MOTOR ACTIVITY.
158487 04-03

SEPARATION

MEMORY TRACES: EXPERIMENTAL SEPARATION BY CYCLOHEXIMIDE AND ELECTROCONVULSIVE SHOCK.
150312 04-04

CONSTITUENTS OF CANNABIS-SATIVA L. III: CLEAR AND DISCRETE SEPARATION OF CANNABIDIOL AND CANNABICHROMENE.
157301 04-17

SEPTAL

DECREASED SENSITIVITY OF SEPTAL MICE TO IMPAIRMENT OF TWO-WAY AVOIDANCE BY CHLORPROMAZINE.
150350 04-04

SEQUENTIAL

SEQUENTIAL TRIAL UPON THE AWAKENING EFFECT OF AMANTADINE AFTER KETAMINE ANESTHESIA.
150833 04-13

SERA

EFFECTS OF D-AMPHETAMINE ON THE INCORPORATION OF CARBON ATOMS OF D-MANNOSE INTO THE BRAINS AND SERA OF DIFFERENTIALLY HOUSED MICE: SHORT-TERM REVERSIBILITY OF THESE EFFECTS.
163779 04-03

SEROTONERGIC

ACTIVATION OF LORDOTIC RESPONDING IN FEMALE RATS BY SUPPRESSION OF SEROTONERGIC ACTIVITY.
150380 04-04

INTERACTIONS BETWEEN AMPHETAMINE AND SEROTONERGIC AGENTS ON CATS ISOLATED CEREBRAL CORTEX.
163780 04-03

SEROTONIN

STIMULATION OF SEROTONIN N-ACETYLTRANSFERASE IN PINEAL ORGAN CULTURE BY DRUGS. (UNPUBLISHED PAPER).
154364 04-03

ROLE OF BETA-ADRENERGIC RECEPTOR IN THE CONTROL OF SEROTONIN N-ACETYLTRANSFERASE IN RAT PINEAL. (UNPUBLISHED PAPER).
154368 04-03

THE EFFECTS OF CINANSERIN, A POTENT SEROTONIN ANTAGONIST, ON THE ACQUISITION OF A RUNNING RESPONSE IN THE RAT.
156808 04-04

BLOCKADE BY BUFOTENIDINE OF THE SEROTONIN AND NARCOTIC ANALGESICS INDUCED CONTRACTION OF DOG INTESTINE IN VIVO.
156825 04-03

NORFENFLURAMINE AND SEROTONIN TURNOVER RATE IN THE RAT BRAIN.
157000 04-03

ANTIANXIETY ACTION OF BENZODIAZEPINES: DECREASE IN ACTIVITY OF SEROTONIN NEURONS IN THE PUNISHMENT SYSTEM.
158280 04-04

HYPNOTIC EFFECT OF 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-4OTA) IN EXPERIMENTALLY INDUCED INSOMNIA AND BRAIN SEROTONIN IN RATS.
158504 04-04

EFFECT OF AMANTADINE ON SEROTONIN METABOLISM IN RAT BRAIN.
158506 04-03

SEROTONIN BINDING PROTEINS ISOLATED BY AFFINITY CHROMATOGRAPHY. (UNPUBLISHED PAPER).
158570 04-03

THE REGULATION OF PINEAL SEROTONIN BY A BETA ADRENERGIC RECEPTOR.
159369 04-03

SEROTONIN METABOLISM IN RAT BRAIN AFTER SURGICAL DIVERSION OF THE PORTAL VENOUS CIRCULATION.
159449 04-03

EFFECT OF BENZODIAZEPINES ON UPTAKE AND EFFLUX OF SEROTONIN IN HUMAN BLOOD PLATELETS IN VITRO.
160473 04-13
ANALYSIS OF TREMORGENIC EFFECTS OF INTRACAUDATE SEROTONIN (37476).
162047 04-03
EFFECT OF LITHIUM ON THE BLOOD AND INTESTINAL SEROTONIN CONTENTS OF RATS.
163019 04-05
SEROTONIN RECEPTORS OF THE RAT BRAIN, THEIR INTERACTIONS WITH METHYSERGIDE. (PH.D. DISSERTATION).
163029 04-03
LONG-TERM RECOVERY OF SEROTONIN CONCENTRATIONS IN THE RAT CNS FOLLOWING 5,6 DIHYDROXYTRYPTAMINE.
163697 04-03
DECREASED ANTINOCICEPTIVE ACTIVITY OF MORPHINE IN RATS PRETREATED INTRAVENTRICULARLY WITH 5,6 DIHYDROXYTRYPTAMINE, A LONG-LASTING SELECTIVE DEPLETOR OF BRAIN SEROTONIN.
163775 04-03
MODIFICATION OF SEROTONIN METABOLISM IN RAT BRAIN AFTER ACUTE OR CHRONIC ADMINISTRATION OF MORPHINE.
166698 04-03
THE INFLUENCE OF PROBENECID ON THE METABOLISM OF SEROTONIN, DOPAMINE AND THEIR PRECURSORS IN MAN.
166726 04-13
A COMPARISON OF COMMON INTERATOMIC DISTANCES IN SEROTONIN AND SOME HALLUCINOGENIC DRUGS.
167042 04-01

SEROTONINERGIC
EFFECTS OF SOME CHOLINERGIC, ADRENERGIC AND SEROTONINERGIC COMPOUNDS, GLUTAMIC ACID AND GABA ON HIPPOCAMPAL SEIZURES.
161963 04-03

SERUM
SERUM FOLATE LEVELS DURING ANTICONVULSANT THERAPY WITH DIPHENYLHYDANTOIN.
152875 04-14
TH_ 24-HOUR SERUM LITHIUM LEVEL AS A PROGNOSTICATOR OF DOSAGE REQUIREMENTS.
152911 04-16
SERUM CONCENTRATIONS OF DIAZEPAM IN SUBJECTS WITH EPILEPSY.
158152 04-11
SIGNIFICANCE OF INFORMATION ON PATIENTS AND PERSONNEL EVALUATED AFTER 5000 SERUM LITHIUM VALUES.
166983 04-17
SERUM AND BRAIN CONCENTRATIONS OF PENTAZOCINE IN RELATION TO ANALGESIC ACTIVITY IN MICE.
167018 04-03

SEVEN-MEMBERED
SEVEN-MEMBERED HETEROCYCLICS OF MEDICINAL POTENTIAL.
156878 04-01

SEX
ALTERATION OF SEXUAL BEHAVIOR AND SEX ACCESSORY GLANDS BY P-CHLOROPHENYLALANINE AND TESTOSTERONE.
150422 04-04
SEX DIFFERENCES IN FIGHTING AND DEFENSE INDUCED IN RATS BY SHOCK AND D-AMPHETAMINE DURING MORPHINE ABSTINENCE.
161125 04-04

SEX-CRAZED
SEX-CRAZED DOPE FIENDS -- MYTH OR REALITY?
151309 04-04

SEX-ROLE
SEX-ROLE DEVELOPMENT AND RESPONSE TO MEDICATION BY PSYCHIATRIC INPATIENTS.
165189 04-17

SEXUAL
ALTERATION OF SEXUAL BEHAVIOR AND SEX ACCESSORY GLANDS BY P-CHLOROPHENYLALANINE AND TESTOSTERONE.
150422 04-04
BENPERIDOL IN THE TREATMENT OF SEXUAL OFFENDERS.
159408 04-11

SHEEP
BEHAVIORAL TOXICOLOGIC ASSESSMENT OF THE NEUROLOGIC EFFECT OF LEAD IN SHEEP.
166736 04-05

SHIFT
THE EFFECT OF CHLORPROMAZINE ON DISCRIMINATION PERFORMANCE AND THE PEAK SHIFT.
157072 04-04
THE EFFECT OF CHLORPROMAZINE ON THE PEAK SHIFT IN THE ALBINO RAT.
157084 04-04

SHIFTS
PARAMAGNETIC ION INDUCED SHIFTS IN THE NMR SPECTRA OF RESERPINE AND METHYL 3,4,5 TRIMETHOXYBENZOATE.
156867 04-06

SHOCK
THE EFFECTS OF INDUCED NAUSEA UPON SHOCK ELICITED AGGRESSION.
150264 04-04
MEMORY TRACES: EXPERIMENTAL SEPARATION BY CYCLOHEXIMIDE AND ELECTROCONVULSIVE SHOCK.
150312 04-04
STUDIES OF ENZYMES AND MODULATORS IN SHOCK INDUCED FIGHTING.
155245 04-04
THE EFFECTS OF CHLORPROMAZINE AND D-AMPHETAMINE UPON SHOCK ELICITED AGGRESSION.
157148 04-04
NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS.
160854 04-04
SEX DIFFERENCES IN FIGHTING AND DEFENSE INDUCED IN RATS BY SHOCK AND D-AMPHETAMINE DURING MORPHINE ABSTINENCE.
161125 04-04

SHORT-TERM
SHORT-TERM EFFECTS OF ADAMANTYLAMINE SULFATE INFUSIONS IN PARKINSON PATIENTS.
152111 04-11
MARIHUANA AND RETRIEVAL FROM SHORT-TERM MEMORY.
153108 04-14
POSITIVE OUTCOME IN PSYCHIATRIC CRISIS: EVALUATION OF THIORIDAZINE CONCENTRATE IN AN INTENSIVE, SHORT-TERM PSYCHIATRIC PROGRAM.
155793 04-10
PSYCHOLOGICAL ASPECTS OF SHORT-TERM VERSUS LONG-TERM L-DOPA THERAPY IN PARKINSONISM. (PH.D. DISSERTATION).
159895 04-14
PSYCHEDELIC (LSD) THERAPY OF NEUROTIC DISORDERS: SHORT-TERM EFFECTS.
162155 04-12
SHORT-TERM EFFECTS OF MARIJUANA SMOKING ON COGNITIVE BEHAVIOR IN EXPERIENCED MALE USERS.
163755 04-14
EFFECTS OF D-AMPHETAMINE ON THE INCORPORATION OF CARBON ATOMS OF D-MANNOSE INTO THE BRAINS AND SERA OF DIFFERENTIALLY HOUSED MICE: SHORT-TERM REVERSIBILITY OF THESE EFFECTS.
163779 04-03

SHUTTLEBOX
THE EFFECT OF SMALL DOSES OF MECAMYLAMINE ON SHUTTLEBOX BEHAVIOR IN THE GUINEA-PIG.
163020 04-04

SIDE-EFFECTS
RECENT ADVANCES IN PSYCHOTHERAPEUTIC DRUGS AND THEIR SIDE-EFFECTS: A SYMPOSIUM.
155994 04-15
OBSERVATIONS OF L-DOPA TREATMENT AND OF ITS SIDE-EFFECTS IN THE AGED.
160138 04-15
THE REVERSIBILITY OF SIDE-EFFECTS OF GUANETHIDINE THERAPY.
160939 04-05
FLUPHENAZINE ENANTHATE AND FLUPHENAZINE DECANOATE: A COMPARISON OF THEIR DURATION OF ACTION AND MOTOR SIDE-EFFECTS.
161905 04-09
SIDE-EFFECTS OF HYPOTENSIVE AGENTS EVALUATED BY A SELF-ADMINISTERED QUESTIONNAIRE.
162720 04-13
TREATMENT OF EXTRAPYRAMIDAL SIDE-EFFECTS IN NEUROLEPTIC THERAPY.
166978 04-15

SIGHT
REVIEW OF MEDICINE IN SPECIAL EDUCATION. DRUG RESEARCH: OUT OF SIGHT, OUT OF MIND.
166484 04-17

SIGNIFICANCE
SIGNIFICANCE AND COMPLICATIONS OF THE CULUTURAL VARIABLES IN PSYCHOPHARMACOLOGICAL RESEARCH.
155267 04-17
SIGNIFICANCE OF INFORMATION ON PATIENTS AND PERSONNEL EVALUATED AFTER 5000 SERUM LITHIUM VALUES.
166983 04-17

SINGLE
SINGLE DOSE EFFECT OF MARIHUANA SMOKE: BRONCHIAL DYNAMICS AND RESPIRATORY CENTER SENSITIVITY IN NORMAL SUBJECTS.
150620 04-13
THE EFFECTS OF A SINGLE ADMINISTRATION OF ETIFOXINE ON SEVERAL PSYCHOLOGICAL TESTS.
150672 04-07
A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

DOPAMINERGIC NEURONS: EFFECT OF ANTIPSYCHOTIC DRUGS AND AMPHETAMINE ON SINGLE CELL ACTIVITY.
157111 04-03
COMPARATIVE PHARMACOKINETICS OF OXAZEPAM AND NORTRIPTYLINE AFTER SINGLE ORAL DOSES IN MAN.
160469 04-13
SINGLE PATIENT ORIENTED NEUROPSYCHOPHARMACOLOGY.
164269 04-14

SINGLE-BLIND
A SINGLE-BLIND EVALUATION OF THIOTHIXENE WITH OUTPATIENT SCHIZOPHRENIC CHILDREN.
150434 04-08

SITES
BINDING SITES FOR NOREPINEPHRINE IN THE BRAIN.
156877 04-03

SITUATION
THE EFFECTS OF METHYLPHENIDATE (RITALIN) UPON PERFORMANCE IN THE SUCCESSIVE DISCRIMINATION REVERSAL SITUATION. (PH.D. DISSERTATION).
163119 04-04

SIZE
GROUP TOXICITY AND INDIVIDUAL TOXICITY -- THE SIZE OF A GROUP AND PHARMACOLOGICAL EFFECTS.
154994 04-05
THE EFFECT OF IMIPRAMINE ADMINISTERED BEFORE AND DURING PREGNANCY ON LITTER SIZE IN THE RAT.
163772 04-03

SKELETAL
GLYCOGEN CONTENT AND PHOSPHORYLASE ACTIVITY IN LIVER AND SKELETAL MUSCLE OF NORMAL AND CHRONICALLY MORPHINIZED RATS.
156638 04-03

SKF-38462
EFFECTS OF PIRACETAM (SKF-38462) ON ACQUISITION, RETENTION, AND ACTIVITY IN THE GOLDFISH.
162276 04-04

SKF-525-A
INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE.
150583 04-03

SKIN
SKIN CONDUCTANCE BASAL LEVEL AND REACTIVITY IN SCHIZOPHRENIA AS A FUNCTION OF CHRONICITY, PREMORBID ADJUSTMENT, DIAGNOSIS, AND MEDICATION.
154170 04-08
SKIN POTENTIAL ORIENTING RESPONSES IN DRUG TREATED AND NONDRUG TREATED DEPRESSED INPATIENTS.
159395 04-09

SLEEP
SLEEP INSURANCE: A VALID USE OF HYPNOTICS
150327 04-17
CONTRIBUTIONS OF DIFFERENTIAL HOUSING TO BRAIN DEVELOPMENT: SOME IMPLICATIONS FOR SLEEP BEHAVIOR.
151705 04-03
DEVELOPMENTAL CHANGES IN NEUROCHEMISTRY DURING THE MATURATION OF SLEEP BEHAVIOR.
151707 04-03
REM SLEEP AND CENTRAL MONOAMINE OXIDASE INHIBITION.
152122 04-13
L-DOPA AND REM SLEEP IN NORMAL AND MENTALLY RETARDED SUBJECTS.
157496 04-14
EFFECTS OF ALPHA-METHYLTYROSINE ON REM SLEEP AND BRAIN AMINE LEVELS IN THE CAT.
157497 04-03
SLEEP LABORATORY AND CLINICAL STUDIES OF THE EFFECTS OF BENZODIAZEPINES ON SLEEP: FLURAZEPAM, DIAZEPAM, CHLORDIAZEPOXIDE, AND RO-5-4200.
158299 04-14
SLEEP LABORATORY AND CLINICAL STUDIES WITH FLURAZEPAM.
158300 04-14
EFFECTS OF TRAZODONE ON SLEEP WAKEFULNESS CYCLE IN RATS.
158508 04-04
DELTA9-TETRAHYDROCANNABINOL AND THE SLEEP WAKEFULNESS CYCLE IN RABBITS.
161119 04-04
PSYCHOPHARMACOLOGY OF SLEEP.
161281 04-14
COMPARATIVE EFFECTIVENESS OF NATURAL SLEEP AND METHOHEXITAL: PROVOCATIVE TESTS IN ELECTROENCEPHALOGRAPHY.
161331 04-11
THE EFFECT OF LITHIUM CARBONATE ON THE SLEEP OF DEPRESSED PATIENTS.
161391 04-14
THE EFFECTS OF PERLAPINE ON SLEEP.
163746 04-14
FLUNITRAZEPAM (RO-5-4200) AND SLEEP CYCLE IN NORMAL SUBJECTS.
163773 04-14
BENZODIAZEPINES AND HUMAN SLEEP.
165642 04-14
EFFECTS OF P-CHLOROPHENYLALANINE AND 5-HYDROXYTRYPTOPHAN ON SLEEP - WAKEFULNESS AND THE CENTRAL METABOLISM OF MONOAMINES AND PROTEINS IN THE CAT.
166692 04-04
THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: III. THE EFFECTS OF AMITRIPTYLINE.
166723 04-14
THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: II. THE EFFECTS OF RESERPINE.
166724 04-14
THE EFFECTS OF LONG-TERM ADMINISTRATION OF PSYCHOTROPIC DRUGS ON HUMAN SLEEP: I. METHODOLOGY AND THE EFFECTS OF PLACEBO.
166725 04-14
CLINICAL AND EEG INVESTIGATIONS WITH CI-579 AND CI-600 (QUANTITATIVE PHARMACOELECTROENCEPHALOGRAPHY AND SLEEP PRINTS).
166733 04-08
CLINICAL PHARMACOLOGY OF SLEEP: A CRITICAL REVIEW OF ALL-NIGHT ELECTROENCEPHALOGRAPHIC STUDIES.
166734 04-08

SLEEPLESSNESS
SLEEPLESSNESS IN ACUTE AND CHRONIC SCHIZOPHRENIA -- RESPONSE TO HALOPERIDOL AND ANTIPARKINSONISM AGENTS.
150351 04-08

SLICES
COMPARISON BETWEEN O-AMINOPHENOL GLUCURONIDATION IN LIVER SLICES AND HOMOGENATES FROM CONTROL AND PHENOBARBITAL TREATED WISTAR AND GUNN RATS.
151351 04-03
IS THE UPTAKE OF NARCOTIC ANALGESICS BY CEREBRAL CORTICAL SLICES MEDIATED IN PART BY ACTIVE TRANSPORT?
151631 04-03
INHIBITION OF BRAIN GLUTAMATE DEHYDROGENASE BY A METABOLITE OF CYCLOHEXIMIDE AND ITS RELEVANCE FOR THE MECHANISM OF AMMONIA FORMATION IN BRAIN SLICES. (UNPUBLISHED PAPER).
151650 04-03
EFFECT OF DESMETHYLIMIPRAMINE ON ACETYLCHOLINE UPTAKE BY SLICES OF RAT BRAIN CORTEX.
155494 04-03
INHIBITORY EFFECT OF METHYLXANTHINES ON THE ADENOSINE STIMULATED FORMATION OF CYCLIC AMP IN BRAIN SLICES.
158512 04-03
UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE.
158771 04-03

SLOW
RESULTS OBTAINED FROM 51 CASES OF DEPRESSIVE SYNDROMES TREATED WITH DESIPRAMINE BY SLOW PHLEBOCLYSIS.
151264 04-09
SLOW SYNAPTIC INHIBITION AND ADRENERGIC ANTAGONISM IN SYMPATHETIC GANGLION. (UNPUBLISHED PAPER)
162394 04-03

SMOKE
SINGLE DOSE EFFECT OF MARIHUANA SMOKE: BRONCHIAL DYNAMICS AND RESPIRATORY CENTER SENSITIVITY IN NORMAL SUBJECTS.
150620 04-13

SMOKERS
QUANTITATION OF DELTA1-TETRAHYDROCANNABINOL IN PLASMA FROM CANNABIS SMOKERS.
158770 04-16

SMOKING
NICOTINE AND SMOKING: EFFECTS UPON SUBJECTIVE CHANGES IN MOOD.
157150 04-14
SHORT-TERM EFFECTS OF MARIJUANA SMOKING ON COGNITIVE BEHAVIOR IN EXPERIENCED MALE USERS.
163755 04-14

SNS
PATTERN OF SYMPATHETIC NERVOUS SYSTEM (SNS) DISCHARGE AND THE BLOOD PRESSURE RESPONSE TO FOOTSHOCK IN THE RAT.
153202 04-03

SOCIABILITY
EFFECTS OF CHLORPROMAZINE AND METHAMPHETAMINE ON SOCIABILITY IN RATS.
163752 04-04

SOCIAL
THE EFFECT OF A STIMULANT DRUG (METHAMPHETAMINE) ON COGNITIVE IMPULSIVITY, PLANNING, NEW LEARNING, AND SOCIAL BEHAVIOR IN HYPERACTIVE CHILDREN. (PH.D. DISSERTATION).
149717 04-14
NEURONAL AND SOCIAL FACTORS IN THE ABUSE OF MARIHUANA.
160747 04-04

NO PRESCRIPTION PADS FOR SOCIAL WORKERS.
161630 04-17

SODIUM
UREIDE RING SCISSION OF PHENOBARBITAL BY SODIUM BOROHYDRIDE.
150418 04-01
THE INFLUENCE OF SOUND PRESSURE LEVEL UPON THE POTENCY OF PHENOBARBITONE SODIUM AND MEPROBAMATE AGAINST AUDIOGENIC SEIZURES IN MICE.
151591 04-04
BRAIN LESIONS ON THE MOUSE FETUS CAUSED BY MONO SODIUM GLUTAMATE (SECOND REPORT).
160038 04-05
STATE-DEPENDENT LEARNING PRODUCED BY POST TRIAL INTRATHORACIC ADMINISTRATION OF SODIUM PENTOBARBITAL.
163761 04-04

SOLUBLE
EFFECT OF SOME LIPID SOLUBLE DERIVATIVES OF AMPHETAMINE ON AMPHETAMINE LEVELS IN RAT BRAIN.
163804 04-03

SOLUTABS
A DOUBLE-BLIND COMPARISON OF HALOPERIDOL ORAL CONCENTRATE, HALOPERIDOL SOLUTABS AND PLACEBO IN THE TREATMENT OF CHRONIC SCHIZOPHRENIA.
156939 04-08

SOLUTION
CONCENTRATION INGESTION RELATIONS OF MORPHINE ADULTERATED FOOD AND MORPHINE SOLUTION.
150321 04-06
CONDITIONED AVERSION TO A PREFERRED SOLUTION FOLLOWING METHAMPHETAMINE INJECTIONS.
153105 04-04

SOLUTIONS
ON THE USE OF ETHANOL AS A SCAVENGER IN STORING LABELLED DOPA AND 5-HYDROXYTRYPTAMINE IN AQUEOUS SOLUTIONS.
156806 04-06

SOMATIC
INTERHEMISPHERIC RELATIONSHIPS WITH SOMATIC THERAPY.
162362 04-14

SOMATOSENSORY
EFFECT OF TRICYCLIC ANTIDEPRESSANTS ON THE SOMATOSENSORY EVOKED POTENTIAL IN MAN.
150349 04-13
EFFECTS OF LITHIUM AND AMITRIPTYLINE THERAPY ON SOMATOSENSORY EVOKED RESPONSE EXCITABILITY MEASUREMENTS.
153101 04-13

SOTALOL
PHARMACOKINETICS OF THE BETA-ADRENERGIC BLOCKER SOTALOL IN DOGS.
150409 04-03
EFFECTS OF BETA ADRENERGIC BLOCKADE WITH SOTALOL IN CHRONIC ANXIETY.
151162 04-10
A COMPARISON OF THE EFFECTS OF SOTALOL AND OF THE ISOMERS OF PRACTOLOL ON ADRENERGIC NERVOUS ACTIVITY.
166789 04-03

SOUND
THE INFLUENCE OF SOUND PRESSURE LEVEL UPON THE POTENCY OF PHENOBARBITONE SODIUM AND MEPROBAMATE AGAINST AUDIOGENIC SEIZURES IN MICE.
151591 04-04

SPASTICITY
DIAZEPAM AND BENZOCTAMINE: EFFECTS ON CERTAIN OBJECTIVE PARAMETERS OF MUSCULAR SPASTICITY.
160642 04-13
DIMETHOTHIAZINE IN SPASTICITY.
161265 04-07

SPATIAL
MEASUREMENT OF ANALGESIA USING A SPATIAL PREFERENCE TEST IN THE RAT.
153569 04-04
THE EFFECTS OF ATROPINE AND ESERINE ON SPATIAL DISCRIMINATION IN C57BL/10 MICE. (PH.D. DISSERTATION).
163132 04-04

SPECIES
A NEUROPSYCHOPHARMACOLOGICAL STUDY OF PHENMETRAZINE IN SEVERAL ANIMAL SPECIES.
156811 04-02
METABOLIC STUDIES ON BENZODIAZEPINES IN VARIOUS ANIMAL SPECIES.
160466 04-03

SPECIFIC
SPECIFIC CHARACTERISTICS OF DIBENZOTHIAZEPINE IN PSYCHOTHERAPY.
149745 04-11
SPECIFIC CHEMOTHERAPY OF THE MOST FREQUENT SUDDEN NERVOUS DISEASES.
151004 04-11
EFFECT OF SEVERAL BENZODIAZEPINES ON CONCENTRATIONS AND SPECIFIC ACTIVITIES OF CHOLINE AND ACETYLCHOLINE IN MOUSE BRAIN. (UNPUBLISHED PAPER).
152546 04-03
CONTROLLED EVALUATION OF INTRAVENOUS DRUGS IN THE SPECIFIC DESENSITIZATION OF PHOBIAS.
153609 04-10
SPECIFIC IRREVERSIBLE INHIBITORS OF MONOAMINE OXIDASE.
156874 04-01
SPECIFIC IRREVERSIBLE INHIBITORS OF MONOAMINE OXIDASE.
164855 04-01

SPECTRA
PARAMAGNETIC ION INDUCED SHIFTS IN THE NMR SPECTRA OF RESERPINE AND METHYL 3,4,5 TRIMETHOXYBENZOATE.
156867 04-06

SPECTROMETRY
APPLICATION OF QUANTITATIVE GC-MASS SPECTROMETRY TO STUDY OF PHARMACOKINETICS OF AMPHETAMINE AND PHENTERMINE.
163188 04-03
METABOLISM OF AMPHETAMINES. IDENTIFICATION OF N-OXYGENATED PRODUCTS BY GAS CHROMATOGRAPHY AND MASS SPECTROMETRY.
165998 04-06

SPECTROPHOTOMETRY
QUANTITATIVE DETERMINATION OF MORPHINE IN POPPY CAPSULES BY DIFFERENTIAL SPECTROPHOTOMETRY.
150416 04-01
AN EXAMINATION OF ACID BASE EQUILIBRIA OF 1,4 BENZODIAZEPINES BY SPECTROPHOTOMETRY.
155902 04-16

SPECTRUM
EVALUATION OF THE THERAPEUTIC SPECTRUM OF ENTUMINE-CHLORO-2-11-DIBENZOTHIAZEPINE. STUDY BASED ON 50 CLINICAL CASES OBSERVED.
151305 04-07

SPEECH
SPEECH DEFECTS OF PARKINSONIAN PATIENTS: EFFECTS OF LEVODOPA THERAPY ON SPEECH INTELLIGIBILITY.
156075 04-14

SPIKE
THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03

SPIKES
A MODULATING EFFECT OF CHLORDIAZEPOXIDE ON DRUG-INDUCED PGO SPIKES IN THE CAT.
158293 04-03

SPINAL
INTERACTION OF OXOTREMORINE WITH ATROPINE, CHLORPROMAZINE, CYPROHEPTADINE, IMIPRAMINE AND PHENOXYBENZAMINE ON THE FLEXOR REFLEX OF THE CHRONIC SPINAL DOG.
150318 04-03
THE INFLUENCE OF P-CHLOROPHENYLALANINE ON THE EFFECT OF 5-HYDROXYTRYPTOPHAN ON SPINAL SYNAPTIC ACTIVITY IN CHRONIC SPINAL AND RESERPINIZED CATS.
154959 04-03
EFFECT OF PARA-METHOXYPHENYLETHYLAMINE ON POLYSYNAPTIC PATHWAYS AND ON INTERNEURONS OF THE CAT LUMBAR SPINAL CORD.
157112 04-03
EFFECTS OF PSYCHOTROPIC DRUGS ON SEGMENTAL SPINAL REFLEX AND SPINO-BULBO-SPINAL (SBS) REFLEX.
158509 04-03
AN ASSAY PROCEDURE FOR TRYPTAMINE IN BRAIN AND SPINAL CORD USING ITS 3H DANSYL DERIVATIVE.
161380 04-06
THE TONIC VIBRATION REFLEX SEEN IN THE ACUTE SPINAL CAT AFTER TREATMENT WITH DOPA.
162892 04-03
THE EFFECT OF SOME SUBSTANCES OF THE PHENOTHIAZINE SERIES AND OF ALPHA-ADRENERGIC BLOCKING AGENTS ON SPINAL CORD ACTIVITY UNDER CONDITIONS OF DISRUPTION OF INHIBITORY MECHANISMS BY TETANUS TOXIN.
162921 04-03
EFFECTS OF TYBAMATE AND PENTYLENETETRAZOL ON SPINAL INTERNEURONS.
162958 04-03
EFFECTS OF NEW S-TRIAZOLOBENZODIAZEPINE (D-40TA) AND OTHER CENTRAL MUSCLE RELAXANTS ON SPINAL AND SUPRASPINAL REFLEXES IN CATS.
163798 04-03

SPINO-BULBO-SPINAL
EFFECTS OF PSYCHOTROPIC DRUGS ON SEGMENTAL SPINAL REFLEX AND SPINO-BULBO-SPINAL (SBS) REFLEX.
158509 04-03

SPIROMETRA-MANSONOIDES
A COMPARISON OF THE METABOLIC EFFECTS OF GROWTH HORMONE AND GROWTH FACTOR FROM SPIROMETRA-MANSONOIDES ON RAT LIVER IN VIVO. (UNPUBLISHED PAPER).
162391 04-03

SPONTANEOUS
SPONTANEOUS MOTOR ACTIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL MOTOR ACTIVITY AND SENSORY ACTIVITY.
158486 04-04
AUDITORY SENSITIVITY IN THE RAT AS AFFECTED BY IMIPRAMINE IN RELATION TO INITIAL SENSORY ACTIVITY AND SPONTANEOUS MOTOR ACTIVITY.
158487 04-03
SPONTANEOUS RELEASE AND DURING METRAZOL CONVULSIONS OF 5-HYDROXYTRYPTAMINE IN SOME BRAIN REGIONS OF CONSCIOUS CAT.
162056 04-03

SPREADING
THE EFFECTS OF SPREADING DEPRESSION ON PENICILLIN INDUCED EPILEPTIFORM ACTIVITY IN RAT BRAIN.
152438 04-05
DRUG-INDUCED CHANGES OF STRIATAL CHOLINERGIC AND DOPAMINERGIC FUNCTIONS IN RATS WITH SPREADING DEPRESSION.
156797 04-03

SQUID
COMPARISON OF THE EFFECT OF DELTA9-TETRAHYDROCANNABINOL, 11-HYDROXY-DELTA9-TETRAHYDROCANNABINOL, AND ETHANOL ON THE ELECTROPHYSIOLOGICAL ACTIVITY OF THE GIANT AXON OF THE SQUID.
156816 04-03

SQUIRREL
COMPARABLE BEHAVIOR MAINTAINED UNDER FIXED-RATIO AND SECOND-ORDER SCHEDULES OF FOOD PRESENTATION, COCAINE INJECTION OR D-AMPHETAMINE INJECTION IN THE SQUIRREL MONKEY.
159367 04-04
THE EFFECTS OF N,N DIMETHYLTRYPTAMINE ON OPERANT BEHAVIOR IN SQUIRREL MONKEYS.
162274 04-04
COMPARISON OF BEHAVIORAL EFFECTS OF NICOTINE, D-AMPHETAMINE, CAFFEINE AND DIMETHYLHEPTYL TETRAHYDROCANNABINOL IN SQUIRREL MONKEYS.
163750 04-04

ST-155
CHARACTERISTICS OF ABNORMAL BEHAVIOR INDUCED BY 2-(2,6 DICHLOROPHENYLAMINO)-2 IMIDAZOLINE (ST-155) IN MICE.
158494 04-04

STANDARD
DEUTERIUM SUBSTITUTED AMPHETAMINE AS AN INTERNAL STANDARD IN A GC/MS ASSAY FOR AMPHETAMINE.
156906 04-06

STANDARDIZED
CANNABIS-SATIVA L. (MARIJUANA) II: STANDARDIZED AND RELIABLE MICROSCOPIC METHOD FOR DETECTION AND IDENTIFICATION OF MARIJUANA.
150419 04-01

STATE
COMPARATIVE DATA FROM A STUDY OF THE METABOLISM OF BIOGENIC AMINES OF EPILEPTIC PATIENTS IN A PSYCHOTIC STATE.
151803 04-13
THE EFFECTS OF THYROID STATE ON THE ACTION AND DISPOSITION OF PHENOTHIAZINES IN RODENTS.
155259 04-03
THIORIDAZINE: ALLEVIATION OF THE MIXED ANXIETY DEPRESSIVE PSYCHONEUROTIC STATE.
159067 04-14
NONPHARMACOLOGICAL EFFECTS OF DRUGS AND THE PARANOID STATE.
161159 04-17

STATE-DEPENDENT
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) AND CHLORDIAZEPOXIDE (CDP) ON STATE-DEPENDENT LEARNING: EVIDENCE FOR ASYMMETRICAL DISSOCIATION.
150301 04-04
RETROGRADE STATE-DEPENDENT LEARNING.
153267 04-14
MARIJUANA INDUCED STATE-DEPENDENT VERBAL LEARNING.
157153 04-14
STATE-DEPENDENT LEARNING (DISSOCIATION OF LEARNING) WITH HALLUCINOGENS IN RATS.
158492 04-04
STATE-DEPENDENT LEARNING PRODUCED BY POST TRIAL INTRATHORACIC ADMINISTRATION OF SODIUM PENTOBARBITAL.
163761 04-04
TRANSFER OF STATE-DEPENDENT CONTROL OF DISCRIMINATIVE BEHAVIOUR BETWEEN SUBCUTANEOUSLY AND INTRAVENTRICULARLY ADMINISTERED NICOTINE AND SALINE.
163771 04-04

STATISTICAL
MEBUTAMATE AS A HYPNOTIC: CLINICAL TRIAL AND STATISTICAL CONSIDERATIONS.
166722 04-13

STEADY-STATE
APPLICATION OF PRINCIPLES OF STEADY-STATE KINETICS TO MEASURE ACETYLCHOLINE TURNOVER RATE IN RAT SALIVARY GLANDS: EFFECT OF DEAFFERENTATION AND DUCT LIGATION.
163763 04-03

STEM
THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03
COMPARISON OF EFFECTS OF NORADRENALINE AND HISTAMINE WITH CYCLIC AMP ON BRAIN STEM NEURONES.
162893 04-03

STEREOCHEMISTRY
THE EFFECT OF N-ALKYL CHAIN LENGTH AND STEREOCHEMISTRY ON THE ABSORPTION, METABOLISM AND URINARY EXCRETION OF N-ALKYLAMPHETAMINES IN MAN.
163800 04-13

STEREOISOMERS
DIFFERENTIAL EFFECTS OF AMPHETAMINE, FENFLURAMINE AND NORFENFLURAMINE STEREOISOMERS ON THE INCREASE OF STRIATUM HOMOVANILLIC ACID IN RATS.
156759 04-03
COMPARATIVE EFFECTS OF STEREOISOMERS OF HALLUCINOGENIC AMPHETAMINES.
162292 04-03

STEREOSPECIFIC
STEREOSPECIFIC REQUIREMENTS FOR HALLUCINOGENSIS.
161146 04-01

STEREOTYPED
BLOCKADE OF D-AMPHETAMINE INDUCED STEREOTYPED BEHAVIOR BY BULBOCAPNINE.
150405 04-04

STERIC
STERIC ASPECTS OF ADRENERGIC DRUGS XXII: RETENTION OF (_)- AND (-) 14C-NOREPINEPHRINE BY MOUSE HEART.
157302 04-01

STEROID
GROWTH OF SUCKLING RATS AFTER TREATMENT WITH DEXAMETHASONE OR CORTISOL: IMPLICATIONS FOR STEROID THERAPY IN HUMAN INFANTS.
159355 04-03

STIMULANT
THE EFFECT OF A STIMULANT DRUG (METHAMPHETAMINE) ON COGNITIVE IMPULSIVITY, PLANNING, NEW LEARNING, AND SOCIAL BEHAVIOR IN HYPERACTIVE CHILDREN. (PH.D. DISSERTATION).
149717 04-14
SECURININE: A CENTRAL NERVOUS SYSTEM STIMULANT IS USED IN THE TREATMENT OF AMYTROPHIC LATERAL SCLEROSIS.
150425 04-11
FACTORS INFLUENCING THE SUPPRESSANT EFFECTS OF TWO STIMULANT DRUGS ON THE GROWTH OF HYPERACTIVE CHILDREN.
151592 04-15
THE RE-EVALUATION OF A CENTRAL NERVOUS SYSTEM STIMULANT: PIPRADROL HYDROCHLORIDE.
152211 04-09
TREATING PROBLEM CHILDREN WITH STIMULANT DRUGS.
158175 04-14

STIMULANTS
USE OF D-AMPHETAMINE AND RELATED CENTRAL NERVOUS SYSTEM STIMULANTS IN CHILDREN.
152066 04-11
THE EFFECTS OF STIMULANTS AND DEPRESSANTS ON COCAINE SELF-ADMINISTRATION BEHAVIOR IN THE RHESUS MONKEY.
157998 04-04

STIMULATED
INHIBITION OF STIMULATED CEREBRAL RESPIRATION IN VITRO AND OXYGEN CONSUMPTION IN VIVO IN RATS TREATED BY CHOLINOLYTIC DRUGS.
156639 04-03
L-DOPA SUPPRESSION OF TRH STIMULATED PROLACTIN RELEASE IN MAN.
156772 04-13
EFFECT OF XANTHINOL NICOTINATE ON METABOLISM OF BRAIN CYCLIC AMP AND METABOLISM IN ELECTRICALLY STIMULATED CEREBRAL TISSUE.
158511 04-03
INHIBITORY EFFECT OF METHYLXANTHINES ON THE ADENOSINE STIMULATED FORMATION OF CYCLIC AMP IN BRAIN SLICES.
158512 04-03

STIMULATING
TREMOR AND INVOLUNTARY MOVEMENTS IN MONKEYS: EFFECT OF L-DOPA AND OF A DOPAMINE RECEPTOR STIMULATING AGENT.
149651 04-03

ACUTE RESPONSES OF SCHIZOPHRENIC CHILDREN TO A SEDATIVE AND STIMULATING NEUROLEPTIC: A PHARMACOLOGIC YARDSTICK.
152208 04-08

STIMULATION
CEREBRAL HYDROXYLASES: STIMULATION BY A NEW FACTOR.
149650 04-03
INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04
DOPAMINE AND NORADRENALINE RECEPTOR STIMULATION: REVERSAL OF RESERPINE INDUCED SUPPRESSION OF MOTOR ACTIVITY.
150664 04-03
NEUROMUSCULAR BLOCKING DRUGS AND THE HEART RATE RESPONSE TO DIRECT PREGANGLIONIC STIMULATION OF THE SYMPATHETICS AND PARASYMPATHETICS IN THE CAT.
153171 04-03
STIMULATION OF SEROTONIN N-ACETYLTRANSFERASE IN PINEAL ORGAN CULTURE BY DRUGS. (UNPUBLISHED PAPER).
154364 04-03
EFFECT OF ERGOT DRUGS ON CENTRAL CATECHOLAMINE NEURONS: EVIDENCE FOR A STIMULATION OF CENTRAL DOPAMINE NEURONS.
155903 04-03
INSULIN STIMULATION OF AIB TRANSPORT IN RAT THYMOCYTES. (UNPUBLISHED PAPER).
156869 04-03
THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03
FURTHER STUDIES ON THE INCREASED SYNTHESIS OF NOREPINEPHRINE DURING NERVE STIMULATION OF GUINEA-PIG VAS-DEFERENS PREPARATION: EFFECT OF TYROSINE AND 6,7 DIMETHYLTETRAHYDROPTERIN.
159368 04-03
EFFECT OF RESERPINE ON FFA MOBILIZATION CAUSED BY EXTREME STIMULATION OF ANIMALS.
161964 04-03

STIMULI
CONTROL OF MORPHINE WITHDRAWAL HYPOTHERMIA BY CONDITIONAL STIMULI.
153098 04-03
DISRUPTION OF DISSOCIATED LEARNING IN A DISCRIMINATION PARADIGM BY EMOTIONALLY IMPORTANT STIMULI.
157044 04-04

STIMULUS
INTRACRANIAL SELF-STIMULATION IN RATS AS A FUNCTION OF VARIOUS STIMULUS PARAMETERS. III. INFLUENCE OF APOMORPHINE ON MEDIAL FOREBRAIN BUNDLE STIMULATION WITH MONOPOLAR ELECTRODES.
150300 04-04
A COMPARISON OF THE STIMULUS PROPERTIES OF MESCALINE AND 2,3,4 TRIMETHOXYPHENYLETHYLAMINE.
156645 04-04

STORAGE
ACCUMULATION, STORAGE AND RELEASE OF ADRENERGIC NEURON BLOCKING AGENTS AND RELATED DRUGS BY HUMAN PLATELETS.
150316 04-03
THE EFFECT OF AMANTADINE AND (_)- AMPHETAMINE ON MOTILITY IN RATS AFTER INHIBITION OF MONOAMINE SYNTHESIS AND STORAGE.
150354 04-04
EFFECTS OF RESERPINE ON THE CONTENT AND PROPERTIES OF RAT ADRENAL MEDULLARY STORAGE VESICLES.
150580 04-03
MEMORY STORAGE IN THREE INBRED MOUSE STRAINS AFTER INJECTION OF CYCLOHEXIMIDE.
153042 04-04

STORES
NARCOTIC ANALGESICS AND THE REGULATION OF NEURONAL CATECHOLAMINE STORES. (UNPUBLISHED PAPER).
152199 04-03
CANNABINOID EFFECTS ON LIVER GLYCOGEN STORES.
156321 04-03

STORING
ON THE USE OF ETHANOL AS A SCAVENGER IN STORING LABELLED DOPA AND 5-HYDROXYTRYPTAMINE IN AQUEOUS SOLUTIONS.
156806 04-06

STP
CARDIOVASCULAR EFFECTS OF 2,5 DIMETHOXY-4-METHYLAMPHETAMINE (DOM, STP).
157068 04-03
BIOCHEMICAL AND PHARMACOLOGICAL STUDY OF 2,5 DIMETHOXY-4-METHYLAMPHETAMINE (DOM, STP) AND ANALOGS. (PH.D. DISSERTATION).
159826 04-03

STRAINS
MEMORY STORAGE IN THREE INBRED MOUSE STRAINS AFTER INJECTION OF CYCLOHEXIMIDE.
153042 04-04
FACTORS INVOLVED IN ETHANOL NARCOSIS: ANALYSIS IN MICE OF THREE INBRED STRAINS.
159567 04-03
ETHANOL AND ACETALDEHYDE METABOLISM IN RAT STRAINS GENETICALLY SELECTED FOR THEIR ETHANOL PREFERENCE.
160542 04-03

STREPTOPELIA-RISORIA
ROLE OF ADRENAL HORMONES IN INCUBATION BEHAVIOR OF MALE RING DOVES (STREPTOPELIA-RISORIA).
162667 04-03

STRESS
FAILURE OF RESERPINE TO BLOCK ETHER INDUCED RELEASE OF PROLACTIN: PHYSIOLOGICAL EVIDENCE THAT STRESS INDUCED PROLACTIN RELEASE IS NOT CAUSED BY ACUTE INHIBITION OF PIF SECRETION.
150424 04-03
INTERACTION OF STRESS AND PSYCHOTOMIMETIC DRUG ACTION: POSSIBLE IMPLICATION FOR PSYCHOSIS.
157042 04-04
THE ROLE OF STRESS IN PASSIVE AVOIDANCE TASKS. (PH.D. DISSERTATION).
159175 04-17

STRESSED
EFFECTS OF L-DOPA AND RESERPINE ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158495 04-04
EFFECTS OF L-DOPA AND DDC ON ACH CONSUMPTION IN BRAIN MITOCHONDRIA AND AGGRESSIVENESS OF MICE STRESSED BY LONG-TERM ISOLATION.
158496 04-04
DRUGS IN STRESSED AND NONSTRESSED ANIMALS.
159397 04-06

STRIATAL
DOPAMINE RECEPTOR BLOCKADE -- A CENTRAL ACTION OF CHLORPROMAZINE ON STRIATAL NEURONS.
152439 04-13
ADRENAL AND STRIATAL TYROSINE HYDROXYLASE ACTIVITY AFTER METHAMPHETAMINE.
156644 04-03
DRUG-INDUCED CHANGES OF STRIATAL CHOLINERGIC AND DOPAMINERGIC FUNCTIONS IN RATS WITH SPREADING DEPRESSION.
156797 04-03
PHARMACOLOGICAL STUDIES ON MECHANISM OF ANTIPARKINSONIAN DRUGS (REPORT 2): ELEVATION OF STRIATAL HOMOVANILLIC ACID CONTENT BY OXOTREMORINE AND ITS MODIFICATION BY ANTICHOLINERGICS.
158501 04-03
INFLUENCE OF QUIPAZINE, A POTENTIAL ANTIPARKINSONIAN AGENT ON THE UPTAKE OF 3H-DOPAMINE AND 3H-SEROTONIN INTO RAT STRIATAL TISSUE IN VITRO.
163793 04-03

STRIATUM
DIFFERENTIAL EFFECTS OF AMPHETAMINE, FENFLURAMINE AND NORFENFLURAMINE STEREOISOMERS ON THE INCREASE OF STRIATUM HOMOVANILLIC ACID IN RATS.
156759 04-03
THE EFFECT OF TRIVASTAL, HALOPERIDOL AND DIBUTYRYL CYCLIC AMP ON (14C)DOPAMINE SYNTHESIS IN RAT STRIATUM.
156766 04-03
THE IN VIVO EFFECT OF TROPOLONE ON DOPAMINE METABOLISM AND THE CATECHOL-O-METHYLTRANSFERASE ACTIVITY IN THE STRIATUM OF THE RAT.
163321 04-03
SOME OBSERVATIONS ON THE PHARMACOLOGY OF THE STRIATUM.
165191 04-13

STRIP
INTERACTION OF COCAINE AND IPRONIAZID ON THE H3-NOREPINEPHRINE UPTAKE MECHANISM ON ISOLATED STRIP VENTRICLE OF FROG HEART.
165412 04-03

STRUCTURAL
A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

STRUCTURALLY
DISTRIBUTION OF SOME STRUCTURALLY RELATED PHARMACOLOGICAL AGENTS IN RAT BRAIN.
150584 04-03

STRUCTURE-ACTIVITY
CHEMISTRY OF 1,4 BENZODIAZEPINES AND SOME ASPECTS OF THE STRUCTURE-ACTIVITY RELATIONSHIP.
160463 04-01

STRUCTURES
EFFECT OF MORPHINE ON THE RNA AND ATP CONCENTRATION OF BRAIN STRUCTURES OF THE RAT.
167043 04-03

STRYCHNINE
STRYCHNINE, MORPHINE AND MONOAMINE DEPRESSION.
160768 04-03

STUDYING
DISSOCIATION OF TWO COMPONENTS OF RAT BEHAVIOR BY PSYCHOTROPIC DRUGS: UTILIZATION FOR STUDYING ANXIOLYTIC DRUGS.
163760 04-04

SUBCELLULAR
TRICYCLIC ANTIDEPRESSANTS: ACTION ON SYNAPTOSOMAL ACETYLCHOLINESTERASE AND ATPASE IN THE BRAIN OF GUINEA-PIGS AND SUBCELLULAR DISTRIBUTION.
156813 04-03

EFFECT OF CHLORPROMAZINE ON 3H-PHENAZINE METHOSULFATE UPTAKE INTO VARIOUS REGIONS OF RAT BRAIN AND INTO SUBCELLULAR FRACTIONS OF BRAIN AND LIVER (IN VITRO).
160202 04-03

SUBCELLULAR ACTIONS OF BENZODIAZEPINES.
160470 04-03

INTERACTION OF DIPHENYLHYDANTONIN-4-14C WITH SUBCELLULAR FRACTIONS OF RAT BRAIN.
162949 04-03

THE SUBCELLULAR DISTRIBUTION OF LYSERGIC ACID DIETHYLAMIDE IN THE RAT BRAIN.
162956 04-03

SUBCHRONIC
SUBCHRONIC ORAL DOSES OF MARIHUANA EXTRACT.
153106 04-13

SUBCLASSIFICATION
ON THE QUESTION OF SUBCLASSIFICATION OF ALPHA-ADRENOCEPTORS.
161144 04-03

SUBCUTANEOUSLY
TRANSFER OF STATE-DEPENDENT CONTROL OF DISCRIMINATIVE BEHAVIOUR BETWEEN SUBCUTANEOUSLY AND INTRAVENTRICULARLY ADMINISTERED NICOTINE AND SALINE.
163771 04-04

SUBJECTIVE
NICOTINE AND SMOKING: EFFECTS UPON SUBJECTIVE CHANGES IN MOOD.
157150 04-14

THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. I. SUBJECTIVE EXPERIENCES.
157343 04-14

SUBJECTS
CANNABIS AND TEMPORAL DISINTEGRATION IN EXPERIENCED AND NAIVE SUBJECTS.
149649 04-14

SINGLE DOSE EFFECT OF MARIHUANA SMOKE: BRONCHIAL DYNAMICS AND RESPIRATORY CENTER SENSITIVITY IN NORMAL SUBJECTS.
150620 04-13

STUDY ON THE EFFECT OF A RESERPINE-LIKE SUBSTANCE (TETRABENAZINE) FOLLOWED BY THE ADMINISTRATION OF A TRICYCLIC ANTIDEPRESSANT (DESMETHYLIMIPRAMINE) ON NORMAL SUBJECTS.
151304 04-07

EFFECT OF MAGNESIUM PEMOLINE AND METHYLPHENIDATE ON MEMORY IMPROVEMENT AND MOOD IN NORMAL AGING SUBJECTS.
153054 04-14

L-DOPA AND REM SLEEP IN NORMAL AND MENTALLY RETARDED SUBJECTS.
157496 04-14

SERUM CONCENTRATIONS OF DIAZEPAM IN SUBJECTS WITH EPILEPSY.
158152 04-11

THE CASE FOR REPORTING THE DRUG STATUS OF PATIENT SUBJECTS IN EXPERIMENTAL STUDIES OF SCHIZOPHRENIC PSYCHOPATHOLOGY.
159043 04-06

FLUNITRAZEPAM (RO-5-4200) AND SLEEP CYCLE IN NORMAL SUBJECTS.
163773 04-14

A SCIENTIFIC RATIONALE FOR CHOOSING PATIENTS RATHER THAN NORMAL SUBJECTS FOR PHASE I STUDIES.
167107 04-14

SUBORDINATE
THE EFFECTS OF PIMOZIDE ON DOMINANT SUBORDINATE BEHAVIOUR IN WISTAR RATS COMPETING FOR FOOD.
163758 04-04

SUBSEQUENT
TREATMENT OF PSYCHOSIS SUBSEQUENT TO PHENOTHIAZINE INDUCED AGRANULOCYTOSIS.
161582 04-14

SUBSTANCE
STUDY ON THE EFFECT OF A RESERPINE-LIKE SUBSTANCE (TETRABENAZINE) FOLLOWED BY THE ADMINISTRATION OF A TRICYCLIC ANTIDEPRESSANT (DESMETHYLIMIPRAMINE) ON NORMAL SUBJECTS.
151304 04-07

THE INFLUENCE OF SYNTHETIC SUBSTANCE P ON TREMOR CAUSED BY LSD IN MICE.
161143 04-03

SUBSTANTIA-NIGRA
ANTAGONISM OF DESCENDING EFFECTS OF THE SUBSTANTIA-NIGRA ON LUMBO-SACRAL MONOSYNAPTIC REFLEXES.
160635 04-03

SUBSTITUTED
COMPARATIVE EFFECTS OF SUBSTITUTED PHENOTHIAZINES AND THEIR FREE RADICALS ON (NA+,K+)- ACTIVATED ADENOSINE TRIPHOSPHATASE.
156640 04-03

DEUTERIUM SUBSTITUTED AMPHETAMINE AS AN INTERNAL STANDARD IN A GC/MS ASSAY FOR AMPHETAMINE.
156906 04-06

SUCCESSIVE
EFFECTS OF CHLORDIAZEPOXIDE UPON SUCCESSIVE RED-GREEN DISCRIMINATION RESPONSES IN JAPANESE MONKEYS, MACACA-FUSCATA.
150325 04-04

THE EFFECTS OF METHYLPHENIDATE (RITALIN) UPON PERFORMANCE IN THE SUCCESSIVE DISCRIMINATION REVERSAL SITUATION. (PH.D. DISSERTATION).
163119 04-04

SUCCINATE
A CONTROLLED DOUBLE-BLIND COMPARISON BETWEEN LOXAPINE SUCCINATE AND CHLORPROMAZINE IN ACUTE NEWLY HOSPITALIZED SCHIZOPHRENIC PATIENTS.
150835 04-08

SUCKLING
GROWTH OF SUCKLING RATS AFTER TREATMENT WITH DEXAMETHASONE OR CORTISOL: IMPLICATIONS FOR STEROID THERAPY IN HUMAN INFANTS.
159355 04-03

SUCROSE
OPIATE DEPENDENCE PRODUCED BY AD LIBITUM DRINKING OF MORPHINE IN WATER, SALINE, AND SUCROSE VEHICLES.
157147 04-04

EFFECTS OF VENTROMEDIAL HYPOTHALAMIC LESIONS ON CONDITIONED SUCROSE AVERSIONS IN RATS.
162673 04-02

SUDDEN
SPECIFIC CHEMOTHERAPY OF THE MOST FREQUENT SUDDEN NERVOUS DISEASES.
151004 04-11

SUFFERING
CLINICAL EXPERIENCE WITH A COMBINATION OF CHLORIMIPRAMINE AND THYROID EXTRACT IN THE TREATMENT OF PATIENTS SUFFERING FROM DEPRESSION.
149746 04-10

SUICIDAL
SUICIDAL ATTEMPT WITH PRACTOLOL.
155040 04-15

SULFATE
SHORT-TERM EFFECTS OF ADAMANTYLAMINE SULFATE INFUSIONS IN PARKINSON PATIENTS.
152111 04-11

BLOCKADE OF THE CENTRAL EFFECTS OF D-AMPHETAMINE SULFATE BY AMANTADINE HYDROCHLORIDE.
156819 04-03

SULPIRIDE
CLINICAL EXPERIMENTS WITH A NEW PSYCHOTROPIC: SULPIRIDE.
151263 04-07

EFFECT OF SULPIRIDE ON OXYGEN UPTAKE BY RATS BRAIN TISSUE IN VITRO.
165411 04-03

THE EFFECT OF SULPIRIDE ON THE VERTIGO OF MENIERES SYNDROME AND ON PSYCHOSOMATIC VESTIBULAR DISORDER.
165755 04-12

SUPERIOR-COLLICULUS
5-HYDROXYTRYPTAMINE METABOLISM, SUPERIOR-COLLICULUS, AND GROOMING BEHAVIOR IN CATS WITH PONTILE LESIONS.
166157 04-03

SUPERSENSITIVITY
5-HYDROXYTRYPTAMINE SUPERSENSITIVITY AS A NEW THEORY OF HEADACHE AND CENTRAL PAIN: A CLINICAL PHARMACOLOGICAL APPROACH WITH P-CHLOROPHENYLALANINE.
150670 04-15

MORPHINE TOLERANCE AND SUPERSENSITIVITY TO 5-HYDROXYTRYPTAMINE IN THE MYENTERIC PLEXUS OF THE GUINEA-PIG.
157318 04-03

SUPPORT
FURTHER EVIDENCE IN SUPPORT OF A COMMON ADRENERGIC MECHANISM FOR THE FACILITATORY ACTION ON LEARNING OF AMPHETAMINE AND NICOTINE IN RATS.
158772 04-04

SUPPORTIVE
RESULTS OF STUDY OF SEVERAL ASPECTS OF SUPPORTIVE PSYCHOPHARMACOTHERAPY IN SCHIZOPHRENIA.
151768 04-08

SUPPRESSANT
FACTORS INFLUENCING THE SUPPRESSANT EFFECTS OF TWO STIMULANT DRUGS ON THE GROWTH OF HYPERACTIVE CHILDREN.
151592 04-15

SUPPRESSED
BRAIN AMINE RELEASE DURING SUPPRESSED BEHAVIOR.
166530 04-03

SUPPRESSING
DOES LITHIUM PREVENT DEPRESSIONS BY SUPPRESSING MANIAS?
161387 04-09

SUPPRESSION
ACTIVATION OF LORDOTIC RESPONDING IN FEMALE RATS BY SUPPRESSION OF SEROTONERGIC ACTIVITY.
150380 04-04
DOPAMINE AND NORADRENALINE RECEPTOR STIMULATION: REVERSAL OF RESERPINE INDUCED SUPPRESSION OF MOTOR ACTIVITY.
150664 04-03
SUPPRESSION AND RECOVERY OF MOUSE KILLING IN RATS FOLLOWING IMMEDIATE LITHIUM CHLORIDE INJECTIONS.
151228 04-04
L-DOPA SUPPRESSION OF TRH STIMULATED PROLACTIN RELEASE IN MAN.
156772 04-13
NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS.
160854 04-04
THE SUPPRESSION IN RABBITS OF THE LOCOMOTOR EFFECTS OF DOPA BY DIETHYLDITHIOCARBAMATE.
161340 04-03
EVIDENCE FOR CATECHOLAMINE INVOLVEMENT IN THE SUPPRESSION OF LOCOMOTOR ACTIVITY DUE TO HYPOXIA.
163802 04-03

SUPRASPINAL
EFFECTS OF NEW S-TRIAZOLOBENZODIAZEPINE (D-40TA) AND OTHER CENTRAL MUSCLE RELAXANTS ON SPINAL AND SUPRASPINAL REFLEXES IN CATS.
163798 04-03

SURAL
AXONAL TRANSPORT OF DOPAMINE-BETA-HYDROXYLASE BY HUMAN SURAL NERVES IN VITRO.
162880 04-13

SURFACTANT
AN INTRAVENOUS FORMULATIONS OF DELTA9-TETRAHYDROCANNABINOL USING A NONIONIC SURFACTANT.
156764 04-05

SURGICAL
SEROTONIN METABOLISM IN RAT BRAIN AFTER SURGICAL DIVERSION OF THE PORTAL VENOUS CIRCULATION.
159449 04-03

SURVEY
AN ANALYTICAL SURVEY OF THE MANAGEMENT OF TRIGEMINAL NEURALGIA.
156250 04-11
DISCUSSION OF A SURVEY OF ACADEMIC AND INDUSTRIAL SCIENTISTS ON TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167109 04-17

SUSCEPTIBILITY
AN EVALUATION OF TIME-DEPENDENT CHANGES IN SUSCEPTIBILITY OF MICE TO PENTOBARBITAL INJECTION.
156809 04-04
ACUTE AND CHRONIC EFFECTS OF D- AND L-AMPHETAMINE ON SEIZURE SUSCEPTIBILITY IN MICE.
156821 04-03
PSYCHOACTIVE COMPOUNDS AND AUDIOGENIC SEIZURE SUSCEPTIBILITY.
160770 04-03
DELTA9-TETRAHYDROCANNABINOL EFFECT ON AUDIOGENIC SEIZURE SUSCEPTIBILITY.
162273 04-03

SWIMMING
EFFECT OF AMPHETAMINE ON THE SWIMMING ENDURANCE OF RATS.
160641 04-04

SWISS
A BIBLIOGRAPHY OF PAPERS FROM THE SWISS LITERATURE, 1970-1971.
166877 04-17

SYMMETREL
A CONTROLLED STUDY OF THE CLINICAL EFFECTS OF AMANTADINE HYDROCHLORIDE (SYMMETREL).
160644 04-11

SYMPATHECTOMY
PHARMACOLOGICAL SYMPATHECTOMY USING 6-HYDROXYDOPAMINE.
154960 04-03
NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS.
160854 04-04
PERIPHERAL CHEMICAL SYMPATHECTOMY AND LEARNING.
161718 04-04
EFFECT OF CHEMICAL SYMPATHECTOMY ON PRESSOR RESPONSES TO NOREPINEPHRINE, ANGIOTENSIN AND TYRAMINE.
163021 04-03
EFFECT OF CHEMICAL SYMPATHECTOMY ON MORPHINE ANTINOCICEPTION AND TOLERANCE DEVELOPMENT IN THE RAT.
166694 04-03

SYMPATHETIC
PATTERN OF SYMPATHETIC NERVOUS SYSTEM (SNS) DISCHARGE AND THE BLOOD PRESSURE RESPONSE TO FOOTSHOCK IN THE RAT.
153202 04-03
DELTA9-TETRAHYDROCANNABINOL AND ETHANOL: DIFFERENTIAL EFFECTS ON SYMPATHETIC ACTIVITY IN DIFFERING ENVIRONMENTAL SETTING.
154261 04-03
EVIDENCE FOR DEGENERATION OF SYMPATHETIC NERVE TERMINALS CAUSED BY THE ORTHO-QUINONES AND PARA-QUINONES OF 6-HYDROXYDOPAMINE.
157178 04-03
SLOW SYNAPTIC INHIBITION AND ADRENERGIC ANTAGONISM IN SYMPATHETIC GANGLION. (UNPUBLISHED PAPER)
162394 04-03
STUDIES ON THE EFFECT OF CYCLAZOCINE, A BENZOMORPHAN DERIVATIVE, ON THE SYMPATHETIC NERVOUS SYSTEM. (PH.D. DISSERTATION).
163534 04-03
UPTAKE AND ACCUMULATION OF 3H-6,7-DIHYDROXYTETRAHYDROISOQUINOLINE BY PERIPHERAL SYMPATHETIC NERVES IN VIVO.
163764 04-03

SYMPATHETICS
NEUROMUSCULAR BLOCKING DRUGS AND THE HEART RATE RESPONSE TO DIRECT PREGANGLIONIC STIMULATION OF THE SYMPATHETICS AND PARASYMPATHETICS IN THE CAT.
153171 04-03

SYMPATHOMIMETIC
THE EFFECTS OF CHANGES IN IONIC ENVIRONMENT AND MODIFICATION OF ADRENERGIC FUNCTION ON THE VASCULAR RESPONSES TO SYMPATHOMIMETIC AMINES.
158769 04-03

SYMPOSIUM
RECENT ADVANCES IN PSYCHOTHERAPEUTIC DRUGS AND THEIR SIDE-EFFECTS: A SYMPOSIUM.
155994 04-15
SYMPOSIUM: NEW THERAPEUTIC APPROACH TO SCHIZOPHRENIA.
165728 04-08

SYMPTOMATIC
SYMPTOMATIC VOLUNTEERS: ANOTHER PATIENT DIMENSION FOR CLINICAL TRIALS.
156938 04-16

SYMPTOMS
MENTAL SYMPTOMS AND PARKINSONISM.
151045 04-15
DRUG-INDUCED EXTRAPYRAMIDAL SYMPTOMS. A COOPERATIVE STUDY.
156324 04-15
PRESENT DAY POSSIBILITIES OF RELIEVING POSTNEUROLEPTIC EXTRAPYRAMIDAL SYMPTOMS.
156562 04-11

SYNAPTIC
SYNAPTIC ALTERATIONS IN THE RABBIT HYPOTHALAMUS FOLLOWING LONG-TERM ADMINISTRATION OF HALOPERIDOL.
150398 04-05
CYTOCHEMISTRY OF SYNAPTIC PHARMACOLOGY. (UNPUBLISHED PAPER).
151429 04-03
SYNAPTIC CHANGES IN THE RABBIT PALLIDUM FOLLOWING LONG-TERM HALOPERIDOL ADMINISTRATION.
152027 04-05
SYNAPTIC ALTERATIONS IN THE HYPOTHALAMUS OF THE RABBIT FOLLOWING LONG-TERM CHLORPROMAZINE ADMINISTRATION.
152028 04-05
THE INFLUENCE OF P-CHLOROPHENYLALANINE ON THE EFFECT OF 5-HYDROXYTRYPTOPHAN ON SPINAL SYNAPTIC ACTIVITY IN CHRONIC SPINAL AND RESERPINIZED CATS.
154959 04-03
SLOW SYNAPTIC INHIBITION AND ADRENERGIC ANTAGONISM IN SYMPATHETIC GANGLION. (UNPUBLISHED PAPER)
162394 04-03

SYNAPTOSOMAL
TRICYCLIC ANTIDEPRESSANTS: ACTION ON SYNAPTOSOMAL ACETYLCHOLINESTERASE AND ATPASE IN THE BRAIN OF GUINEA-PIGS AND SUBCELLULAR DISTRIBUTION.
156813 04-03

SYNDROME
INDICATIONS AND RESULTS OF MONOAMINE TREATMENT IN THE PARKINSONIAN SYNDROME.
150220 04-11
ACATHISTIC AND TASIKINETIC (MOVING PELVIS) SYNDROMES AND THE RESTLESS LEGS SYNDROME.
150772 04-15
A NOTE ON THE USE OF ANTICOAGULANT THERAPY IN CHRONIC BRAIN SYNDROME.
152030 04-11
ORGANIC BRAIN SYNDROME DURING LITHIUM CARBONATE TREATMENT.
153271 04-15
TREATMENT OF PARKINSONS SYNDROME WITH A COMBINATION OF LEVODOPA AND THIETHYL-PERAZINE -- A PRELIMINARY STUDY.
154783 04-11
A CASE OF TURNERS SYNDROME WITH PSYCHIC DISTURBANCES.
156552 04-11
ON THE THERAPY OF THE PARKINSON SYNDROME.
156891 04-11
IMIPRAMINE FOR THE HYPERKINETIC SYNDROME.
157362 04-11
TARDIVE DYSKINESIA: A PERSISTENT NEUROLOGICAL SYNDROME ASSOCIATED WITH ANTIPSYCHOTIC DRUG USE.
159348 04-15
THE EPISODIC DYSCONTROL SYNDROME.
162363 04-09
THE EFFECT OF SULPIRIDE ON THE VERTIGO OF MENIERES SYNDROME AND ON PSYCHOSOMATIC VESTIBULAR DISORDER.
165755 04-12

SYNDROMES
ROLE OF MONOAMINES IN THE PSYCHOPATHOLOGY OF MOTORICITY: IMPLICATED NEURAL CIRCUITS IN THE PSYCHOPATHOLOGY OF PARKINSONIAN SYNDROMES.
150219 04-11
USEFULNESS OF COMBINED PHARMACOLOGICAL TREATMENT IN ENDOGENOUS DEPRESSIVE SYNDROMES.
150748 04-09
ACATHISTIC AND TASIKINETIC (MOVING PELVIS) SYNDROMES AND THE RESTLESS LEGS SYNDROME.
150772 04-15
RESULTS OBTAINED FROM 51 CASES OF DEPRESSIVE SYNDROMES TREATED WITH DESIPRAMINE BY SLOW PHLEBOCLYSIS.
151264 04-09
SOME PATHOGENIC MECHANISMS OF THE THERAPEUTIC EFFICACY OF ATROPINE IN ANANCASTIC SYNDROMES.
156555 04-10
DRUG THERAPY: NEUROLOGIC SYNDROMES ASSOCIATED WITH ANTIPSYCHOTIC DRUG USE.
158264 04-15

SYNERGISTIC
MECHANISM OF THE SYNERGISTIC LETHALITY BETWEEN PENTAZOCINE AND VASOPRESSIN IN THE RAT.
157066 04-05

SYNTHESIS
THE EFFECT OF AMANTADINE AND (_)- AMPHETAMINE ON MOTILITY IN RATS AFTER INHIBITION OF MONOAMINE SYNTHESIS AND STORAGE.
150354 04-04
SYNTHESIS AND CNS DEPRESSANT ACTIVITY OF IMIDAZOLINONE GLYOXYLATES.
150415 04-02
NEW COMPOUNDS: SYNTHESIS OF ALKYL ESTERS OF D,L-DOPA.
150417 04-01
CATECHOLAMINE SYNTHESIS AND THE REGULATION OF FOOD INTAKE IN THE RAT.
150423 04-04
THE EFFECT OF TRIVASTAL, HALOPERIDOL AND DIBUTYRYL CYCLIC AMP ON (14C)DOPAMINE SYNTHESIS IN RAT STRIATUM.
156766 04-03
SYNTHESIS OF SCOTOPHOBIN. A MEMORY CODE WORD.
156872 04-01
SYNTHESIS OF INDOLE ISOSTERES.
156876 04-01
FURTHER STUDIES ON THE INCREASED SYNTHESIS OF NOREPINEPHRINE DURING NERVE STIMULATION OF GUINEA-PIG VAS-DEFERENS PREPARATION: EFFECT OF TYROSINE AND 6,7 DIMETHYLTETRAHYDROPTERIN.
159368 04-03
EFFECT OF D-AMPHETAMINE ON THE TURNOVER, SYNTHESIS AND METABOLISM OF BRAIN PHOSPHATIDYLCHOLINE.
166697 04-03

SYNTHETIC
STUDY OF THE DELAYED FORM OF A SYNTHETIC ANTIPARKINSONIAN AGENT: AKINETON.
157233 04-09
EEG AND BEHAVIORAL EFFECTS OF NATURAL, SYNTHETIC AND BIOSYNTHETIC CANNABINOIDS.
158004 04-04
THE INFLUENCE OF SYNTHETIC SUBSTANCE P ON TREMOR CAUSED BY LSD IN MICE.
161143 04-03

SYSTEMATIC
THE MANAGEMENT OF SEVERE AGORAPHOBIA: A COMPARISON OF IPRONIAZID AND SYSTEMATIC DESENSITIZATION.
163751 04-10

SYSTEMIC
MODIFICATION OF LEVODOPA EFFECT BY SYSTEMIC DECARBOXYLASE INHIBITION.
150216 04-13

T-WAVE
PHENOTHIAZINE INDUCED T-WAVE ABNORMALITIES: EFFECTS OF OVERNIGHT FASTING.
152961 04-15

TACHYCARDIA
PROPRANOLOL ANTAGONISM OF MARIHUANA INDUCED TACHYCARDIA.
150404 04-15

TAIL-FLICK
INFLUENCE OF 6-HYDROXYDOPAMINE ON THE EFFECT OF MORPHINE ON THE TAIL-FLICK LATENCY.
157146 04-04

TARDIVE
TARDIVE DYSKINESIA: A PERSISTENT NEUROLOGICAL SYNDROME ASSOCIATED WITH ANTIPSYCHOTIC DRUG USE.
159348 04-15
METHYLPHENIDATE IN TARDIVE DYSKINESIA.
160824 04-13
MANAGEMENT OF TARDIVE DYSKINESIA WITH THIOPROPAZATE.
160825 04-13
TARDIVE DYSKINESIAS FROM THE MAJOR TRANQUILIZERS.
163159 04-05
PHYSOSTIGMINE IN TARDIVE DYSKINESIA IN THE ELDERLY.
166364 04-11

TASIKINETIC
ACATHISTIC AND TASIKINETIC (MOVING PELVIS) SYNDROMES AND THE RESTLESS LEGS SYNDROME.
150772 04-15

TASK
THE INFLUENCE OF METHAMPHETAMINE AND DIAZEPAM ON THE AMPLITUDE CHANGES OF THE ACHILLES TENDON AND HOFFMANN REFLEX DURING A MENTAL TASK.
152074 04-14
NATURE AND AMPLITUDE OF THE EFFECTS OF ACETOXYCYCLOHEXIMIDE ON THE RETENTION OF AN INSTRUMENTAL TASK IN MICE.
161123 04-04

TASKS
THE ROLE OF STRESS IN PASSIVE AVOIDANCE TASKS. (PH.D. DISSERTATION).
159175 04-17

TASTE
TASTE AVERSIONS AND ACUTE METHYLMERCURY POISONING IN RATS.
155341 04-05

TEACHING
ROLE OF CONSULTATION PSYCHIATRY IN TEACHING PSYCHOPHARMACOLOGY IN THE GENERAL HOSPITAL.
161595 04-17

TECHNIQUES
REVIEW OF BEHAVIORAL TECHNIQUES.
163647 04-11

TEGMENTAL
THE EFFECT OF M-TYROSINE ON TREMOR AND ON ABNORMAL MOVEMENTS IN MONKEYS WITH VENTROMEDIAL TEGMENTAL LESIONS.
158274 04-03
THE EFFECT OF FOCALLY ADMINISTERED DRUGS ON SELF-STIMULATION OF THE VENTRAL TEGMENTAL AREA IN RATS. (PH.D. DISSERTATION).
160896 04-04

TEGRETOL
CARBAMAZEPINE (TEGRETOL) IN THE TREATMENT OF DELIRIUM TREMENS.
151395 04-11
SOME DATA ON TEGRETOL THERAPY FOR PATIENTS WITH EPILEPSY.
151807 04-11
ON SOME NEW POSSIBILITIES FOR THE THERAPEUTIC USE OF TEGRETOL IN THE PSYCHIATRIC CLINIC.
151809 04-11
ACTION OF CARBAMAZEPINE (TEGRETOL) AND APHENDIONE ON REACTIONS PROVOKED BY INTRAAMYGDALOID ADMINISTRATION OF CARBACHOLINE TO RABBITS.
151815 04-04

TEMPERAMENTS
THE EFFECTS OF CHRONIC CANNABIS TREATMENT ON THE AGGRESSIVE BEHAVIOR AND BRAIN 5-HYDROXYTRYPTAMINE LEVELS OF RATS WITH DIFFERENT TEMPERAMENTS.
163778 04-04

TEMPERATURE
THE EFFECTS OF 6-HYDROXYDOPAMINE, DOPAMINE AND DL-NOREPINEPHRINE ON FOOD INTAKE AND WATER CONSUMPTION, SELF-STIMULATION, TEMPERATURE AND ELECTROENCEPHALOGRAPHIC ACTIVITY IN THE RAT.
150352 04-04

TEMPORAL
CANNABIS AND TEMPORAL DISINTEGRATION IN EXPERIENCED AND NAIVE SUBJECTS.
149649 04-14
INFLUENCE OF LITHIUM CARBONATE ON PATIENTS WITH TEMPORAL EPILEPSY.
153614 04-11
AMPHETAMINE-INDUCED DISRUPTION OF TEMPORAL DISCRIMINATION BY RESPONSE DISINHIBITION.
163737 04-03

TENDON
THE INFLUENCE OF METHAMPHETAMINE AND DIAZEPAM ON THE AMPLITUDE CHANGES OF THE ACHILLES TENDON AND HOFFMANN REFLEX DURING A MENTAL TASK.
152074 04-14

TENSION
LOW DOSES OF HALOPERIDOL IN ANXIETY -- TENSION STATES.
150554 04-10
CYCLOBENZAPRINE IN THE TREATMENT OF CHRONIC TENSION HEADACHE.
151201 04-11
STUDY OF THE EFFECT OF PSYCHOTROPIC DRUGS ON TENSION IN MOOD STATES.
153090 04-09
PHARMACOTHERAPY OF TENSION AND ANXIETY.
153794 04-10

TERATOGENICITY
COMPARING TERATOGENICITY IN MAN AND MONKEY.
163011 04-15

TERATOLOGY
NEUROCHEMICAL TERATOLOGY: 5-HYDROXYINDOLE CONCENTRATIONS IN DISCRETE AREAS OF RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
156751 04-03

TERMINAL
LSD ASSISTED PSYCHOTHERAPY IN PATIENTS WITH TERMINAL CANCER.
161385 04-11

TERMINALLY
RELIEVING PAIN IN THE TERMINALLY ILL.
162311 04-11

TERMINALS
EVIDENCE FOR DEGENERATION OF SYMPATHETIC NERVE TERMINALS CAUSED BY THE ORTHO-QUINONES AND PARA-QUINONES OF 6-HYDROXYDOPAMINE.
157178 04-03

TEST
PIPERACETAZINE IN CHRONIC MENTAL PATIENTS: CLINICAL OBSERVATIONS AND NEW URINE COLOR TEST.
150831 04-07
MEASUREMENT OF ANALGESIA USING A SPATIAL PREFERENCE TEST IN THE RAT.
153569 04-04
DOUBLE-BLIND TEST OF THREE ANTIDEPRESSANTS. SECOND COMMUNICATION: CLINICAL COMPARISON OF NOXIPTILINE, NOR-NOXIPTILINE AND AMITRIPTYLINE WITH THE AMP SYSTEM.
156849 04-09
EFFECT OF PROPRANOLOL ON FREE FATTY ACIDS OF MICE PLASMA DURING A PASSIVE AVOIDANCE TEST.
157155 04-03
LU-5-003 IN ANTIDEPRESSIVE THERAPY. A CONTROLLED CLINICAL TEST WITH SIMULTANEOUS MEASUREMENT OF PHARMACOKINETIC PARAMETERS. PRELIMINARY REPORT.
166982 04-13

TESTED
EFFECTS OF LITHIUM CHLORIDE ON THE ACTIVITY OF RATS TESTED ALONE OR IN PAIRS.
150356 04-04

TESTING
HOSPITAL TESTING OF AN ORAL LONG-TERM NEUROLEPTIC: PENFLURIDOL.
156892 04-08
MENTAL PATIENTS USED IN TESTING DRUGS.
165564 04-08
TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167108 04-17
DISCUSSION OF A SURVEY OF ACADEMIC AND INDUSTRIAL SCIENTISTS ON TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167109 04-17

TESTOSTERONE
ALTERATION OF SEXUAL BEHAVIOR AND SEX ACCESSORY GLANDS BY P-CHLOROPHENYLALANINE AND TESTOSTERONE.
150422 04-04
PLASMA TESTOSTERONE CONTENT OF MALE PATIENTS WITH PARKINSONS DISEASE DURING L-DOPA TREATMENT WITH OR WITHOUT DOPADECARBOXYLASE INHIBITOR.
151695 04-15

TESTS
THE EFFECTS OF A SINGLE ADMINISTRATION OF ETIFOXINE ON SEVERAL PSYCHOLOGICAL TESTS.
150672 04-07
THE POSSIBILITY OF PREDICTING THE EFFECTS OF MARIHUANA IN MAN BY MEANS OF PHARMACOLOGICAL TESTS IN LABORATORY ANIMALS. PRELIMINARY RESULTS.
150778 04-13
CORRELATION BETWEEN BRAIN DOPAMINE LEVELS AND L-DOPA ACTIVITY IN ANTIPARKINSON TESTS.
156823 04-06
INACTIVITY OF DELTA9-TETRAHYDROCANNABINOL IN ANTIDEPRESSANT SCREENING TESTS.
157142 04-03
PSYCHOMETRIC TESTS AND CLINICAL EXPERIMENTATION IN PSYCHIATRY.
160315 04-14
COMPARATIVE EFFECTIVENESS OF NATURAL SLEEP AND METHOHEXITAL: PROVOCATIVE TESTS IN ELECTROENCEPHALOGRAPHY.
161331 04-11

TETANUS
THE EFFECT OF SOME SUBSTANCES OF THE PHENOTHIAZINE SERIES AND OF ALPHA-ADRENERGIC BLOCKING AGENTS ON SPINAL CORD ACTIVITY UNDER CONDITIONS OF DISRUPTION OF INHIBITORY MECHANISMS BY TETANUS TOXIN.
162921 04-03

TETRABENAZINE
STUDY ON THE EFFECT OF A RESERPINE-LIKE SUBSTANCE (TETRABENAZINE) FOLLOWED BY THE ADMINISTRATION OF A TRICYCLIC ANTIDEPRESSANT (DESMETHYLIMIPRAMINE) ON NORMAL SUBJECTS.
151304 04-07

TETRACYCLIC
DRUG DEVELOPMENTS IN EUROPE: DISCOVERY OF TETRACYCLIC PSYCHOTROPIC DRUGS.
155268 04-17

TETRAHYDROCANNABINOL
EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING.
158000 04-04
COMPARISON OF BEHAVIORAL EFFECTS OF NICOTINE, D-AMPHETAMINE, CAFFEINE AND DIMETHYLHEPTYL TETRAHYDROCANNABINOL IN SQUIRREL MONKEYS.
163750 04-04

TETRAHYDROCANNABINOLS
ACUTE EFFECTS OF TWO TETRAHYDROCANNABINOLS (DELTA9-THC AND DELTA8-THC) ON WATER INTAKE IN WATER DEPRIVED RATS: IMPLICATIONS FOR BEHAVIORAL STUDIES ON MARIHUANA COMPOUNDS.
157149 04-04

TETRAHYDROISOQUINOLINE
DOPAMINE DERIVED TETRAHYDROISOQUINOLINE ALKALOIDS -- INHIBITORS OF NEUROAMINE METABOLISM.
160546 04-03

THALAMIC
TREATMENT OF PARKINSONISM BY THE USE OF L-DOPA AND THALAMIC OPERATIONS.
161558 04-13

THALAMONAL
COMPARATIVE STUDY OF THE EFFICACY OF DIAZEPAM, PENTOBARBITAL, AND FENTANYL-DROPERIDOL (THALAMONAL) AGAINST TOXICITY INDUCED BY LOCAL ANESTHETICS IN MICE.
158304 04-05

THC
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) AND CHLORDIAZEPOXIDE (CDP) ON STATE-DEPENDENT LEARNING: EVIDENCE FOR ASYMMETRICAL DISSOCIATION.
150301 04-04
EFFECTS OF DELTA9-TETRAHYDROCANNABINOL (THC) ON SEVERAL RODENT LEARNING PARADIGMS.
167040 04-04

THEORETICAL
THE USE OF DRUGS IN DEPRESSION: ITS THEORETICAL AND PRACTICAL BASIS.
167262 04-11

THEORY
5-HYDROXYTRYPTAMINE SUPERSENSITIVITY AS A NEW THEORY OF HEADACHE AND CENTRAL PAIN: A CLINICAL PHARMACOLOGICAL APPROACH WITH P-CHLOROPHENYLALANINE.
150670 04-15
DYNAMICS OF DRUG DEPENDENCE: IMPLICATIONS OF A CONDITIONING THEORY FOR RESEARCH AND TREATMENT.
155239 04-17

INTRACELLULAR LITHIUM CONCENTRATION AND CLINICAL RESPONSE: TOWARDS A MEMBRANE THEORY OF DEPRESSION.
161732 04-13

THERAPEUTIC
LITHIUM EXCRETION AND THERAPEUTIC RESPONSE.
150314 04-13
CLASSIFICATION OF EPILEPSY FROM A THERAPEUTIC ASPECT.
151012 04-11
EVALUATION OF THE THERAPEUTIC SPECTRUM OF ENTUMINE-CHLORO-2-11-DIBENZOTHIAZEPINE. STUDY BASED ON 50 CLINICAL CASES OBSERVED.
151305 04-07
NEW THERAPEUTIC POSSIBILITIES IN DEPRESSIONS: TRYPTOPHAN AND INHIBITORS OF MONOAMINE OXIDASE.
151394 04-10
ON SOME NEW POSSIBILITIES FOR THE THERAPEUTIC USE OF TEGRETOL IN THE PSYCHIATRIC CLINIC.
151809 04-11
THE THERAPEUTIC EFFECTS OF LORAZEPAN IN PSYCHOTIC PATIENTS TREATED WITH HALOPERIDOL: A DOUBLE-BLIND STUDY.
152209 04-09
METABOLISM, ANTICHOLINERGIC EFFECTS, AND THERAPEUTIC OUTCOME OF DESMETHYLIMIPRAMINE IN DEPRESSIVE ILLNESS.
153121 04-09
THE THERAPEUTIC FUTURE OF MIND-ALTERING DRUGS.
154830 04-17
SOME PATHOGENIC MECHANISMS OF THE THERAPEUTIC EFFICACY OF ATROPINE IN ANANCASTIC SYNDROMES.
156555 04-10
KINETICS AND DYNAMICS OF RESPONSE TO HALOPERIDOL IN ACUTE SCHIZOPHRENIA -- A LONGITUDINAL STUDY OF THE THERAPEUTIC PROCESS.
162869 04-08
THE THERAPEUTIC USE OF DIAZEPAM FOR AKATHISIA.
163333 04-08
SYMPOSIUM: NEW THERAPEUTIC APPROACH TO SCHIZOPHRENIA.
165728 04-08
PREDICTION OF THERAPEUTIC USES OF PSYCHOTHERAPEUTIC DRUGS FROM EXPERIENCES WITH NORMAL VOLUNTEERS.
167106 04-14

THERAPEUTICALLY
ANIMAL MODELS FOR AN ENZYMIC BLOOD-BRAIN BARRIER MECHANISM FOR THERAPEUTICALLY ADMINISTERED L-DOPA.
159566 04-03

THERAPEUTICS
THE CLINICAL PHARMACOLOGY OF IMIPRAMINE: IMPLICATIONS FOR THERAPEUTICS.
156157 04-15

THERAPIES
DRUG-INDUCED ATTENUATION OF ALCOHOL CONSUMPTION: A REVIEW AND EVALUATION OF CLAIMED, POTENTIAL OR CURRENT THERAPIES.
154690 04-11

THERAPY
MOUTH DRYNESS, A NOTABLE REACTION TO PSYCHOTROPIC THERAPY, AND ITS TREATMENT.
150646 04-15
LITHIUM CARBONATE THERAPY IN ENDOGENOUS DEPRESSION.
150746 04-09
LITHIUM THERAPY IN PSYCHIATRY.
150796 04-14
APLASTIC ANEMIA ASSOCIATED WITH LITHIUM THERAPY.
150797 04-15
DRUG THERAPY: HYPNOTIC DRUGS.
150829 04-17
DRUG AND ELECTROSHOCK THERAPY.
151512 04-11
SOME DATA ON TEGRETOL THERAPY FOR PATIENTS WITH EPILEPSY.
151807 04-11
A NOTE ON THE USE OF ANTICOAGULANT THERAPY IN CHRONIC BRAIN SYNDROME.
152030 04-11
ENCEPHALOPATHY IN ACUTE LEUKEMIA ASSOCIATED WITH METHOTREXATE THERAPY.
152036 04-15
BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. I. CHLORPROMAZINE AND THIORIDAZINE.
152867 04-11
BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. II. MULTIVITAMIN SUPPLEMENT.
152868 04-11
SERUM FOLATE LEVELS DURING ANTICONVULSANT THERAPY WITH DIPHENYLHYDANTOIN.
152875 04-14
PHARMACOLOGICAL THERAPY OF PARKINSONISM WITH LEVODOPA.
152978 04-17
EFFECTS OF LITHIUM AND AMITRIPTYLINE THERAPY ON SOMATOSENSORY EVOKED RESPONSE EXCITABILITY MEASUREMENTS.
153101 04-13
BEHAVIOUR THERAPY VERSUS DRUG THERAPY IN THE TREATMENT OF PHOBIC NEUROSIS.
153606 04-10
ACUTE PAROTITIS ASSOCIATED WITH DEPRESSION AND PSYCHOACTIVE DRUG THERAPY.
155089 04-14
ENDOCRINE EXOPHTHALMOS DURING LITHIUM THERAPY OF MANIC-DEPRESSIVE DISEASE.
155366 04-09
SPEECH DEFECTS OF PARKINSONIAN PATIENTS: EFFECTS OF LEVODOPA THERAPY ON SPEECH INTELLIGIBILITY.
156075 04-14
ON THE THERAPY OF AUTISM.
156595 04-11
ON THE THERAPY OF THE PARKINSON SYNDROME.
156891 04-11
DRUG THERAPY: NEUROLOGIC SYNDROMES ASSOCIATED WITH ANTIPSYCHOTIC DRUG USE.
158264 04-15
CLINICAL USE OF DIAZEPAM AN INTENSIVE THERAPY: INDICATIONS AND RESULTS.
158297 04-17
GROWTH OF SUCKLING RATS AFTER TREATMENT WITH DEXAMETHASONE OR CORTISOL: IMPLICATIONS FOR STEROID THERAPY IN HUMAN INFANTS.
159355 04-03
PSYCHOLOGICAL ASPECTS OF SHORT-TERM VERSUS LONG-TERM L-DOPA THERAPY IN PARKINSONISM. (PH.D. DISSERTATION).
159895 04-14
RESULTS OF THE EFFECTS OF FLUSPIRILENE ON CHRONIC SCHIZOPHRENIC PATIENTS UNDERGOING OCCUPATIONAL THERAPY.
160216 04-08
CHILDHOOD ACROMEGALY: SUCCESSFUL THERAPY WITH CONVENTIONAL RADIATION AND EFFECTS OF CHLORPROMAZINE ON GROWTH HORMONE AND PROLACTIN SECRETION.
160653 04-13
THE REVERSIBILITY OF SIDE-EFFECTS OF GUANETHIDINE THERAPY.
160939 04-05
POSSIBLE RATIONALE FOR PROCAINE (GEROVITAL-H3) THERAPY IN GERIATRICS: INHIBITION OF MONOAMINE OXIDASE.
160951 04-11
PSYCHEDELIC (LSD) THERAPY OF NEUROTIC DISORDERS: SHORT-TERM EFFECTS.
162155 04-12
INTERHEMISPHERIC RELATIONSHIPS WITH SOMATIC THERAPY.
162362 04-14
AN EVALUATION OF CONTINUATION THERAPY WITH TRICYCLIC ANTIDEPRESSANTS IN DEPRESSIVE ILLNESS.
162636 04-09
SENSORIMOTOR COORDINATION IN PARKINSONS DISEASE BEFORE AND AFTER LEVODOPA THERAPY.
163805 04-13
ORTHOMOLECULAR THERAPY.
163997 04-08
DRUG THERAPY: ANTICHOLINERGICS.
165463 04-15
DEVELOPMENTS IN DRUG THERAPY.
166582 04-17
GLUTATHIONE THERAPY OF EARLY SENILE DEMENTIA.
166908 04-09
TREATMENT OF EXTRAPYRAMIDAL SIDE-EFFECTS IN NEUROLEPTIC THERAPY.
166978 04-15
LU-5-003 IN ANTIDEPRESSIVE THERAPY. A CONTROLLED CLINICAL TEST WITH SIMULTANEOUS MEASUREMENT OF PHARMACOKINETIC PARAMETERS. PRELIMINARY REPORT.
166982 04-13

THIETHYL-PERAZINE
TREATMENT OF PARKINSONS SYNDROME WITH A COMBINATION OF LEVODOPA AND THIETHYL-PERAZINE -- A PRELIMINARY STUDY.
154783 04-11

THIOPENTAL
DISPLACEMENT OF THIOPENTAL FROM PLASMA PROTEINS BY NONSTEROIDAL ANTIINFLAMMATORY AGENTS.
163635 04-05

THIOPROPAZATE
MANAGEMENT OF TARDIVE DYSKINESIA WITH THIOPROPAZATE.
160825 04-13

THIOPROPERAZINE
CLINICAL AND EXPERIMENTAL STUDY OF THE ALCOHOL - THIOPROPERAZINE COMBINATION.
150623 04-17

THIORIDAZINE
THE EFFECTS OF LONG-ACTING THIORIDAZINE IN SOME PSYCHIATRIC DISEASES.
149744 04-11
THIORIDAZINE TOXICITY: AGRANULOCYTOSIS AND HEPATITIS WITH ENCEPHALOPATHY.
150843 04-15

A DOUBLE-BLIND COMPARISON OF HALOPERIDOL (HALDOL) AND THIORIDAZINE (MELLARIL) IN OUTPATIENT CHILDREN.
152212 04-11
BEHAVIORAL EFFECTS OF DRUG THERAPY ON PSYCHOGERIATRIC INPATIENTS. I. CHLORPROMAZINE AND THIORIDAZINE.
152867 04-11
POSITIVE OUTCOME IN PSYCHIATRIC CRISIS: EVALUATION OF THIORIDAZINE CONCENTRATE IN AN INTENSIVE, SHORT-TERM PSYCHIATRIC PROGRAM.
155793 04-10
THIORIDAZINE: ALLEVIATION OF THE MIXED ANXIETY DEPRESSIVE PSYCHONEUROTIC STATE.
159067 04-14
DOUBLE-BLIND COMPARISON OF HALOPERIDOL AND THIORIDAZINE IN TREATMENT RESISTANT PSYCHONEUROTIC OUTPATIENTS.
163337 04-10
TIOTIXENE AND THIORIDAZINE IN ALCOHOLISM TREATMENT.
165371 04-11
A COMPARATIVE TRIAL OF HALOPERIDOL AND THIORIDAZINE: MANAGEMENT OF CHRONIC SCHIZOPHRENIA.
165621 04-08

THIOTHIXENE
A SINGLE-BLIND EVALUATION OF THIOTHIXENE WITH OUTPATIENT SCHIZOPHRENIC CHILDREN.
150434 04-08
THIOTHIXENE IN THE TREATMENT OF DISEASES OF THE SENIUM.
152210 04-07
THE DUAL ACTION OF THIOTHIXENE.
162171 04-08

THIOXANTHENE
DRUG ALLERGY TO THIOXANTHENE, MANIFESTED BY THE MORPHOLOGICAL PICTURE OF ERYTHEMA EXSUDATIVUM MULTIFORME, AS A RESULT OF TAKING CLOPENTHIXOL.
152089 04-15

THOUGHTS
THOUGHTS ON TREATMENT OF ADDICTION: EXPERIENCES WITH ARGINIL (GLUCOSE-1-PHOSPHATE-ARGININE).
151014 04-11

THR
THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. I. SUBJECTIVE EXPERIENCES.
157343 04-14
THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. II. PITUITARY THYROID RESPONSES.
157344 04-13

THRESHOLD
A PERMANENT CHANGE IN CONVULSIVE THRESHOLD IN NORMAL AND BRAIN-DAMAGED RATS WITH REPEATED SMALL DOSES OF PENTYLENETETRAZOL.
152437 04-03
AUTONOMIC CORRELATES OF THE SEDATION THRESHOLD.
155526 04-13
LITHIUM AND AMPHETAMINE: OPPOSITE EFFECTS ON THRESHOLD OF INTRACRANIAL REINFORCEMENT.
157045 04-04
ELEVATION OF LIDOCAINE SEIZURE THRESHOLD BY GALLAMINE.
163313 04-03
RESPONSE THRESHOLD TO L-DOPA IN PSYCHIATRIC PATIENTS.
166068 04-14

THRESHOLDS
METHAMPHETAMINE LOWERS SELF-STIMULATION THRESHOLDS.
157083 04-04
THE ROLE OF BIOGENIC AMINES IN THE RESERPINE INDUCED ALTERATION OF MINIMAL ELECTROSHOCK SEIZURE THRESHOLDS IN THE MOUSE.
160639 04-03

THYMOCYTES
INSULIN STIMULATION OF AIB TRANSPORT IN RAT THYMOCYTES. (UNPUBLISHED PAPER).
156869 04-03

THYROID
CLINICAL EXPERIENCE WITH A COMBINATION OF CHLORIMIPRAMINE AND THYROID EXTRACT IN THE TREATMENT OF PATIENTS SUFFERING FROM DEPRESSION.
149746 04-10
COMBINED THYROID (TRIIODOTHYRONINE) TRICYCLIC ANTIDEPRESSANT TREATMENT IN DEPRESSIVE STATES.
154980 04-09
TRH AND THYROID HORMONES: DOPA RESPONSE AND DOPA METABOLISM.
155253 04-03
T3 AND TSH RESPONSE TO TRH: NEWER ASPECTS OF LITHIUM INDUCED THYROID DISTURBANCE IN MAN.
155255 04-13
LITHIUM AND THE THYROID: CURRENT FINDINGS IN MAN.
155256 04-15
THE EFFECTS OF THYROID STATE ON THE ACTION AND DISPOSITION OF PHENOTHIAZINES IN RODENTS.
155259 04-03
THYROID HORMONES AND CATECHOLAMINE MACROMOLECULAR MECHANISMS IN CNS.
155260 04-03
THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. II. PITUITARY THYROID RESPONSES.
157344 04-13

THYROIDECTOMIZED
TRH: ENHANCEMENT OF DOPA ACTIVITY IN NORMAL INTACT, HYPOPHYSECTOMIZED AND THYROIDECTOMIZED ANIMALS.
155252 04-03

THYROXINE
EFFECT OF LITHIUM ON THYROXINE DISAPPEARANCE IN MAN.
156771 04-13

TIGHT
TIGHT NEW RULES FOR METHAQUALONE.
167120 04-17

TIME
PROBLEMS AND EXPERIENCES WITH TRIALS OUTSIDE THE UNITED-STATES: THE TIME LAG IN NEW DRUG AVAILABILITY.
155274 04-17
THE REFLECTION OF EJECTING AND RETAINING CURRENTS IN THE TIME COURSE OF NEURONAL RESPONSES TO MICROELECTROPHORETICALLY APPLIED DRUGS.
158768 04-03
CANNABIS AND ALCOHOL: EFFECTS ON ESTIMATION OF TIME AND DISTANCE.
163777 04-14
INFLUENCE OF AMPHETAMINES, PROTRIPTYLINE AND PARGYLINE ON THE TIME COURSE OF THE NOREPINEPHRINE INDUCED ACCUMULATION OF CYCLIC AMP IN THE RAT BRAIN.
165790 04-03
TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167108 04-17
DISCUSSION OF A SURVEY OF ACADEMIC AND INDUSTRIAL SCIENTISTS ON TESTING NEW DRUGS FOR THE FIRST TIME IN MAN.
167109 04-17

TIME-DEPENDENT
AN EVALUATION OF TIME-DEPENDENT CHANGES IN SUSCEPTIBILITY OF MICE TO PENTOBARBITAL INJECTION.
156809 04-04

TIOTIXENE
TIOTIXENE AND THIORIDAZINE IN ALCOHOLISM TREATMENT.
165371 04-11

TIPRENOLOL
PHARMACOLOGICAL STUDIES WITH TIPRENOLOL AND PROPRANOLOL IN MAN.
156817 04-13

TISSUE
OPIATE RECEPTOR: DEMONSTRATION IN NERVOUS TISSUE.
150381 04-03
IN VITRO INHIBITORY EFFECTS OF NARCOTIC ANALGESICS AND OTHER PSYCHOTROPIC DRUGS ON THE ACTIVE UPTAKE OF NOREPINEPHRINE IN MOUSE BRAIN TISSUE.
157063 04-03
EFFECT OF XANTHINOL NICOTINATE ON METABOLISM OF BRAIN CYCLIC AMP AND METABOLISM IN ELECTRICALLY STIMULATED CEREBRAL TISSUE.
158511 04-03
INFLUENCE OF QUIPAZINE, A POTENTIAL ANTIPARKINSONIAN AGENT ON THE UPTAKE OF 3H-DOPAMINE AND 3H-SEROTONIN INTO RAT STRIATAL TISSUE IN VITRO.
163793 04-03
EFFECT OF SULPIRIDE ON OXYGEN UPTAKE BY RATS BRAIN TISSUE IN VITRO.
165411 04-03
EFFECT OF AN AMPHETAMINE DERIVATIVE IN RAT ADIPOSE TISSUE LIPOLYSIS AND GLYCEROL UTILIZATION IN VITRO.
166693 04-03
EFFECT OF DIPHENYLHYDANTOIN ON THE UPTAKE AND CATABOLISM OF L-(3H)NOREPINEPHRINE IN VITRO IN RAT CEREBRAL CORTEX TISSUE.
166696 04-03

TISSUES
EFFECTS OF MORPHINE ON CATECHOLAMINE TURNOVER, CYCLIC 3,5 AMP CONCENTRATIONS AND TYROSINE HYDROXYLASE ACTIVITY IN RAT TISSUES. (UNPUBLISHED PAPER).
152549 04-03
EFFECT OF DRUGS ON THE TRYPTAMINE CONTENT OF RAT TISSUES.
157109 04-03
UPTAKE AND METABOLISM OF L-3,4 DIHYDROXYPHENYLALANINE (DOPA) IN RAT TISSUES.
166022 04-05

TITRATION
SOME CORRELATES OF MARIHUANA SELF-ADMINISTRATION IN MAN: A STUDY OF TITRATION OF INTAKE AS A FUNCTION OF DRUG POTENCY.
153100 04-13

TIZERTSINE
INFLUENCE OF TIZERTSINE AND TRIFLUOPERAZINE ON MOBILITY OF MAIN NERVOUS PROCESSES IN PATIENTS WITH PRESENILE PSYCHOSIS.
156588 04-11

TOGETHER
THE EFFECTS OF DOXEPIN, ALONE AND TOGETHER WITH ALCOHOL, IN RELATION TO DRIVING SAFETY.
155841 04-14

TOLERANCE
TOLERANCE IN THE DEPRESSION OF INTAKE WHEN AMPHETAMINE IS ADDED TO THE RATS FOOD.
150353 04-03
INFLUENCE OF 5,6-DIHYDROXYTRYPTAMINE ON MORPHINE TOLERANCE AND PHYSICAL DEPENDENCE.
156822 04-03
THE USE OF D-AMPHETAMINE PELLET IMPLANTATION AS A MODEL FOR D-AMPHETAMINE TOLERANCE IN THE MOUSE.
157038 04-03
ACQUISITION AND LOSS OF TOLERANCE TO 1 DELTA9-TRANS-TETRAHYDROCANNABINOL IN RATS ON AN AVOIDANCE SCHEDULE.
157039 04-04
ACUTE AND CHRONIC TOLERANCE TO NICOTINE MEASURED BY ACTIVITY IN RATS.
157151 04-03
MORPHINE TOLERANCE AND SUPERSENSITIVITY TO 5-HYDROXYTRYPTAMINE IN THE MYENTERIC PLEXUS OF THE GUINEA-PIG.
157318 04-03
ACUTE TOLERANCE TO DIAZEPAM IN CATS.
158295 04-03
ATTENUATION OF THE MORPHINE EEG CONTINUUM FOLLOWING A REPEAT DOSE WITHIN 16 DAYS: DELAYED TOLERANCE IN THE RAT.
160633 04-03
BARBITURATE TOLERANCE AND PSYCHOLOGICAL FUNCTIONING IN ELDERLY DEPRESSED PATIENTS.
162639 04-09
FACILITATION OF DEVELOPMENT OF TOLERANCE TO MORPHINE BY DESGLYCINAMIDE9-LYSINE VASOPRESSIN (DGVP). (UNPUBLISHED PAPER).
162738 04-03
EFFECTS OF REPEATED ADMINISTRATION OF DL-AMPHETAMINE AND METHAMPHETAMINE ON TOLERANCE TO HYPERACTIVITY.
162959 04-04
BIOLOGICAL MECHANISMS UNDERLYING THE DEVELOPMENT OF BEHAVIORAL TOLERANCE TO DIISOPROPYLFLUOROPHOSPHATE. (PH.D. DISSERTATION).
163535 04-03
MESCALINE: NO TOLERANCE TO EXCITATORY EFFECTS.
166067 04-04
EFFECT OF CHEMICAL SYMPATHECTOMY ON MORPHINE ANTINOCICEPTION AND TOLERANCE DEVELOPMENT IN THE RAT.
166694 04-03

TOLERANT
RESTORATION OF MORPHINE ANALGESIA IN MORPHINE TOLERANT RATS AFTER THE INTRAVENTRICULAR ADMINISTRATION OF 6-HYDROXYDOPAMINE.
158774 04-03

TONIC
THE TONIC VIBRATION REFLEX SEEN IN THE ACUTE SPINAL CAT AFTER TREATMENT WITH DOPA.
162892 04-03

TOXIC
TOXIC ENCEPHALOPATHY FOLLOWING LONG-TERM ADMINISTRATION OF PHENMETRAZINE.
151376 04-15
REVERSIBLE TOXIC PSYCHOSIS AFTER CEPHALEXIN.
156754 04-15
CEREBELLAR TOXIC EFFECTS FROM NITROFURANTOIN.
158153 04-15

TOXICITY
THIORIDAZINE TOXICITY: AGRANULOCYTOSIS AND HEPATITIS WITH ENCEPHALOPATHY.
150843 04-15
LITHIUM TOXICITY OCCURRING WITH A REDUCING DIET.
153613 04-09
GROUP TOXICITY AND INDIVIDUAL TOXICITY -- THE SIZE OF A GROUP AND PHARMACOLOGICAL EFFECTS.
154994 04-05
COMPARATIVE STUDY OF THE EFFICACY OF DIAZEPAM, PENTOBARBITAL, AND FENTANYL-DROPERIDOL (THALAMONAL) AGAINST TOXICITY INDUCED BY LOCAL ANESTHETICS IN MICE.
158304 04-05
STUDIES ON THE MECHANISM OF CARDIAC TOXICITY OF TRICYCLIC ANTIDEPRESSANTS.
158474 04-05
LONG-TERM TOXICITY STUDY OF METHYLMERCURY CHLORIDE IN MONKEYS (SECOND REPORT).
158515 04-05
PATHOBIOLOGICAL MECHANISMS OF ANTIDEPRESSANT AND ANTIPSYCHOTIC DRUG TOXICITY. (PH.D. DISSERTATION).
159822 04-03
CIRCADIAN RHYTHMS OF DRUG EFFECTIVENESS AND TOXICITY.
166719 04-13

TOXICOLOGIC
BEHAVIORAL TOXICOLOGIC ASSESSMENT OF THE NEUROLOGIC EFFECT OF LEAD IN SHEEP.
166736 04-05

TOXICOLOGY
CLINICAL TOXICOLOGY VII. POISONING BY SALICYLATES, PARACETAMOL, TRICYCLIC ANTIDEPRESSANTS AND A MISCELLANY OF DRUGS.
159588 04-15
ADVANCES IN FORENSIC AND CLINICAL TOXICOLOGY.
167246 04-15

TOXIN
THE EFFECT OF CHOLERA TOXIN ON THE PHOSPHORYLATION OF PROTEIN IN EPITHELIAL CELLS AND THEIR BRUSH BORDERS.
156879 04-03
THE EFFECT OF SOME SUBSTANCES OF THE PHENOTHIAZINE SERIES AND OF ALPHA-ADRENERGIC BLOCKING AGENTS ON SPINAL CORD ACTIVITY UNDER CONDITIONS OF DISRUPTION OF INHIBITORY MECHANISMS BY TETANUS TOXIN.
162921 04-03

TOXINS
ABNORMAL O-METHYLATED DOPAMINE METABOLITES: THE ENDOGENOUS TOXINS OF SCHIZOPHRENIA OR PARKINSONISM
155905 04-13

TPN-12
COMPARATIVE TRIAL OF IMICLOPAZINE, TPN-12 PIMOZIDE AND TRIFLUPERIDOL IN SCHIZOPHRENIA.
156563 04-08
EFFECTS OF TPN-12 SANDOZ IN SCHIZOPHRENIA.
156564 04-08

TRACE
BLOOD HISTAMINE, BASOPHIL COUNTS, AND TRACE ELEMENTS IN THE SCHIZOPHRENIAS.
150964 04-08

TRACES
MEMORY TRACES: EXPERIMENTAL SEPARATION BY CYCLOHEXIMIDE AND ELECTROCONVULSIVE SHOCK.
150312 04-04

TRAINED
MORPHINE, PROPRANOLOL AND THEIR INTERACTION IN MONKEYS TRAINED TO SELF-ADMINISTER DRUGS. (UNPUBLISHED PAPER).
158321 04-04

TRAINING
CYCLOHEXIMIDE AFFECTS MEMORY WITHIN MINUTES AFTER THE ONSET OF TRAINING.
150151 04-04

TRANQUILIZATION
RAPID TRANQUILIZATION OF ACUTELY PSYCHOTIC PATIENTS WITH INTRAMUSCULAR HALOPERIDOL AND CHLORPROMAZINE.
155797 04-09

TRANQUILIZER
LONG-ACTION TRANQUILIZER.
158121 04-14

TRANQUILIZERS
MINOR TRANQUILIZERS, HYPNOTICS, AND SEDATIVES.
155058 04-17
RECENT PHARMACOTHERAPY: TRANQUILIZERS.
157035 04-17
TARDIVE DYSKINESIAS FROM THE MAJOR TRANQUILIZERS.
163159 04-05
ABUSE OF BENZODIAZEPINE TRANQUILIZERS.
165679 04-17

TRANQUILIZING
STUDIES ON THE EFFECT OF TRANQUILIZING DRUGS ON THE IMMUNE RESPONSE.
161389 04-05

TRANQUILLIZING
EMOTIONALLY INDUCED CARDIOVASCULAR CHANGES IN MAN AS A MEANS FOR THE INVESTIGATION OF TRANQUILLIZING DRUGS.
150323 04-13

TRANSCULTURAL
METHODOLOGICAL CONSIDERATIONS IN TRANSCULTURAL PSYCHOPHARMACOLOGY.
155261 04-17

TRANSFER
TRANSFER OF STATE-DEPENDENT CONTROL OF DISCRIMINATIVE BEHAVIOUR BETWEEN SUBCUTANEOUSLY AND INTRAVENTRICULARLY ADMINISTERED NICOTINE AND SALINE.
163771 04-04

TRANSITIONS
EFFECTS OF DELTA8-THC, AND DELTA9-THC ON THE ACQUISITION OF A DISCRIMINATIVE POSITIONAL HABIT IN RATS: THE TRANSITIONS BETWEEN NORMAL AND TETRAHYDROCANNABINOL INDUCED STATES ON REVERSAL LEARNING.
158000 04-04

TRANSMISSION
ALTERATION OF ETHANOL INDUCED CNS DEPRESSION: INEFFECTIVENESS OF DRUGS THAT MODIFY CHOLINERGIC TRANSMISSION. (UNPUBLISHED PAPER).
158058 04-04

TRANSMITTERS
ANTAGONISTIC ACTIVITY OF SOME PHENOTHIAZINE DERIVATIVES AGAINST NEUROHUMORAL TRANSMITTERS.
157139 04-03
RELATIONSHIP BETWEEN MORPHINE AND CANDIDATE NEUROHUMORAL TRANSMITTERS IN THE BRAIN (REPORT 7).
158484 04-03
EFFECTS OF ETHANOL ON CEREBRAL CORTICAL NEURONS: INTERACTIONS WITH SOME PUTATIVE TRANSMITTERS.
158773 04-03

TRANSPLACENTAL
TRANSPLACENTAL PASSAGE OF PRIMIDONE.
152137 04-15

TRANSPORT
IS THE UPTAKE OF NARCOTIC ANALGESICS BY CEREBRAL CORTICAL SLICES MEDIATED IN PART BY ACTIVE TRANSPORT?
151631 04-03
INHIBITION OF RENAL TUBULAR TRANSPORT OF MORPHINE BY DIETHYLAMINOETHANOL IN THE CHICKEN.
152162 04-03
INSULIN STIMULATION OF AIB TRANSPORT IN RAT THYMOCYTES. (UNPUBLISHED PAPER).
156869 04-03
AXONAL TRANSPORT OF DOPAMINE-BETA-HYDROXYLASE BY HUMAN SURAL NERVES IN VITRO.
162880 04-13

TRANYLCYPROMINE
EFFECTS OF L-TRYPTOPHAN, L-3,4,DIHYDROXYPHENYLALANINE AND TRANYLCYPROMINE ON THE ELECTROENCEPHALOGRAM AND ON PHOTICALLY INDUCED EPILEPSY IN THE BABOON, PAPIO-PAPIO.
152044 04-03
A STUDY OF THE TRANYLCYPROMINE MEPERIDINE INTERACTION: EFFECTS OF P-CHLOROPHENYLALANINE AND 1 5-HYDROXYTRYPTOPHAN.
157065 04-03

TRAPEZOIDES
THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03

TRAZODONE
EFFECTS OF TRAZODONE ON SLEEP WAKEFULNESS CYCLE IN RATS.
158508 04-04
COMPREHENSIVE CLINICAL STUDIES WITH TRAZODONE.
160643 04-11

TREATABLE
TREATABLE VIOLENCE.
150689 04-09

TREATED
ENHANCED APPETITIVE DISCRIMINATION LEARNING IN RATS TREATED WITH ALPHA-METHYLTYROSINE.
150320 04-04
RESULTS OBTAINED FROM 51 CASES OF DEPRESSIVE SYNDROMES TREATED WITH DESIPRAMINE BY SLOW PHLEBOCLYSIS.
151264 04-09
COMPARISON BETWEEN O-AMINOPHENOL GLUCURONIDATION IN LIVER SLICES AND HOMOGENATES FROM CONTROL AND PHENOBARBITAL TREATED WISTAR AND GUNN RATS.
151351 04-03
THE THERAPEUTIC EFFECTS OF LORAZEPAN IN PSYCHOTIC PATIENTS TREATED WITH HALOPERIDOL: A DOUBLE-BLIND STUDY.
152209 04-09
METABOLISM OF AMPHETAMINE AND BETA,BETA DIFLUOROAMPHETAMINE IN PHENOBARBITAL TREATED RATS.
155493 04-03
INHIBITION OF STIMULATED CEREBRAL RESPIRATION IN VITRO AND OXYGEN CONSUMPTION IN VIVO IN RATS TREATED BY CHOLINOLYTIC DRUGS.
156639 04-03
A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03
GROWTH AND BEHAVIORAL CHANGES IN DEVELOPING RATS TREATED INTRACISTERNALLY WITH 6-HYDROXYDOPAMINE: EVIDENCE FOR INVOLVEMENT OF BRAIN DOPAMINE.
157117 04-03
UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE.
158771 04-03
SKIN POTENTIAL ORIENTING RESPONSES IN DRUG TREATED AND NONDRUG TREATED DEPRESSED INPATIENTS.
159395 04-09
GROWTH RETARDATION IN YOUNG MICE TREATED WITH DL-METHADONE.
159654 04-03
ACID MONOAMINE METABOLITES IN THE CEREBROSPINAL FLUID OF PARKINSONIAN PATIENTS TREATED WITH LEVODOPA ALONE OR COMBINED WITH DECARBOXYLASE INHIBITOR.
160650 04-13
MUTISM AND HYPERTHERMIA IN A PATIENT TREATED WITH NEUROLEPTICS.
163202 04-15
CONVULSIONS ELICITED BY HANDLING: A SENSITIVE METHOD OF MEASURING CNS EXCITATION IN MICE TREATED WITH RESERPINE OR CONVULSANT DRUGS.
163748 04-03
A COMPARISON OF THE EFFECTS OF D-AMPHETAMINE AND MORPHINE UPON THE LOCOMOTOR ACTIVITY OF MICE TREATED WITH DRUGS WHICH ALTER BRAIN CATECHOLAMINE CONTENT.
163769 04-04
INCREASED BLOOD ETHANOL ELIMINATION IN RATS TREATED WITH HALOTHANE.
165995 04-03
PERMANENT DEMENTIA IN IDIOPATHIC PARKINSONISM TREATED WITH LEVODOPA.
166033 04-15
DISSOCIATION OF EXCITATORY AND HYPERPYREXIC EFFECTS OF LSD IN RATS TREATED WITH ALPHA-METHYLTYROSINE.
166732 04-03

TREATING
TREATING PROBLEM CHILDREN WITH STIMULANT DRUGS.
158175 04-14

TREATMENT
CLINICAL EXPERIENCE WITH A COMBINATION OF CHLORIMIPRAMINE AND THYROID EXTRACT IN THE TREATMENT OF PATIENTS SUFFERING FROM DEPRESSION.
149746 04-10
BRAIN CATECHOLAMINES AND THEIR METABOLITES IN PARKINSONIAN PATIENTS: TREATMENT WITH LEVODOPA ALONE OR COMBINED WITH A DECARBOXYLASE INHIBITOR.
150218 04-13
INDICATIONS AND RESULTS OF MONOAMINE TREATMENT IN THE PARKINSONIAN SYNDROME.
150220 04-11
A STUDY OF THE TREATMENT OF REACTIVE AND NEUROTIC DEPRESSIONS BY A COMBINATION OF AMITRIPTYLINE AND PERPHENAZINE.
150255 04-09
SECURININE: A CENTRAL NERVOUS SYSTEM STIMULANT IS USED IN THE TREATMENT OF AMYTROPHIC LATERAL SCLEROSIS.
150425 04-11
REFLECTIONS ON A 3-YEAR TREATMENT OF 120 PATIENTS WITH A NEW ANTIDEPRESSANT.
150645 04-09
MOUTH DRYNESS, A NOTABLE REACTION TO PSYCHOTROPIC THERAPY, AND ITS TREATMENT.
150646 04-15
THE EFFECT OF PHARMACOLOGIC TREATMENT ON ASSOCIATION DISTURBANCES IN SCHIZOPHRENIA.
150745 04-08
USEFULNESS OF COMBINED PHARMACOLOGICAL TREATMENT IN ENDOGENOUS DEPRESSIVE SYNDROMES.
150748 04-09
NEUROLEPTIC TREATMENT OF PRISONERS WITH MENTAL ABNORMALITIES.
150749 04-11
THE USE OF LITHIUM CARBONATE IN THE TREATMENT OF MOOD DISORDERS.
150798 04-09
THE BACKGROUND TO THE NIACIN TREATMENT.
150951 04-08
ORTHOMOLECULAR PSYCHIATRY: TREATMENT OF SCHIZOPHRENIA.
150971 04-08
THOUGHTS ON TREATMENT OF ADDICTION: EXPERIENCES WITH ARGINIL (GLUCOSE-1-PHOSPHATE-ARGININE).
151014 04-11
CYCLOBENZAPRINE IN THE TREATMENT OF CHRONIC TENSION HEADACHE.
151201 04-11
PHARMACOLOGICAL TREATMENT OF CEREBRAL ARTERIOSCLEROSIS WITH A NEW DRUG COMBINATION.
151268 04-11
NEW DRUGS IN THE TREATMENT OF PARKINSONISM.
151377 04-11
SEVERE INFECTIOUS HEPATITIS COMPLICATED WITH ACUTE PSYCHOSIS DURING HYDROCORTISONE TREATMENT.
151380 04-11
CARBAMAZEPINE (TEGRETOL) IN THE TREATMENT OF DELIRIUM TREMENS.
151395 04-11

BEHAVIOURAL AND DRUG TREATMENT OF CHILDREN WITH SEVERE MENTAL HANDICAP.
151452 04-11
RECENT ADVANCES IN THE TREATMENT OF PARKINSONISM WITH DRUGS.
151685 04-11
TREATMENT OF PARKINSONISM WITH L-DOPA AND DECARBOXYLASE INHIBITOR: AN ELECTROPHYSIOLOGICAL STUDY.
151688 04-11
TREATMENT OF PARKINSONISM WITH A COMBINATION OF LEVODOPA AND THE DECARBOXYLASE INHIBITOR RO-4-4602 (A COMPARISON WITH LEVODOPA TREATMENT ALONE).
151689 04-07
TREATMENT OF PARKINSONISM WITH A COMPOUND OF L-DOPA (LARODOPA) AND A DECARBOXYLASE INHIBITOR (RO-4-4602).
151691 04-11
TREATMENT FAILURES WITH L-DOPA IN PARKINSONISM.
151692 04-11
THE INFLUENCE OF L-DOPA ON PHYSICAL TREATMENT OF PARKINSONISM.
151694 04-11
PLASMA TESTOSTERONE CONTENT OF MALE PATIENTS WITH PARKINSONS DISEASE DURING L-DOPA TREATMENT WITH OR WITHOUT DOPADECARBOXYLASE INHIBITOR.
151695 04-15
LONG-TERM TREATMENT OF PARKINSONISM WITH L-DOPA.
151696 04-11
PROPHYLACTIC TREATMENT FOR MANIC-DEPRESSIVES.
151722 04-09
PECULIARITIES OF THE TREATMENT OF EPILEPTIC PATIENTS WITH PSYCHOMOTOR PAROXYSMS.
151806 04-11
USE OF LEPTRIL IN THE TREATMENT OF DYSPHORIAS IN EPILEPTIC PATIENTS.
151810 04-11
PECULIARITIES OF THE TREATMENT OF EPILEPTIC DYSPHORIAS IN OUTPATIENT PRACTICE.
151811 04-11
PRELIMINARY REPORT TREATMENT WITH RO-5-3350 ON AMBULATORY NEUROTIC PATIENTS.
151947 04-07
THE ACTION OF ANTIDEPRESSANTS AND CONVULSIVE TREATMENT UPON THE HIGHER NERVOUS ACTIVITY IN DEPRESSIVE STATES.
152152 04-09
THIOTHIXENE IN THE TREATMENT OF DISEASES OF THE SENIUM.
152210 04-07
TREATMENT OF AMBULATORY NEUROTIC PATIENTS WITH WY-4036, JAKARTA, INDONESIA.
152342 04-10
ORGANIC BRAIN SYNDROME DURING LITHIUM CARBONATE TREATMENT.
153271 04-15
BEHAVIOUR THERAPY VERSUS DRUG THERAPY IN THE TREATMENT OF PHOBIC NEUROSIS.
153606 04-10
LACTATE INFUSION IN THE TREATMENT OF FREE-FLOATING ANXIETY.
153608 04-10
PSYCHIATRIC CASE STUDIES: TREATMENT, DRUGS, AND OUTCOME.
154482 04-17
TREATMENT OF PARKINSONS SYNDROME WITH A COMBINATION OF LEVODOPA AND THIETHYL-PERAZINE -- A PRELIMINARY STUDY.
154783 04-11
CLINICAL EVALUATION OF IMIPRAMINE-N-OXIDE (IPNO) IN THE TREATMENT OF DEPRESSIVE STATES.
154979 04-09
COMBINED THYROID (TRIIODOTHYRONINE) TRICYCLIC ANTIDEPRESSANT TREATMENT IN DEPRESSIVE STATES.
154980 04-09
LITHIUM AND PREGNANCY - III, LITHIUM INGESTION BY CHILDREN BREAST-FED BY WOMEN ON LITHIUM TREATMENT.
155043 04-15
DYNAMICS OF DRUG DEPENDENCE: IMPLICATIONS OF A CONDITIONING THEORY FOR RESEARCH AND TREATMENT.
155239 04-17
MULTIMODALITY APPROACHES TO THE TREATMENT AND PREVENTION OF OPIATE ADDICTION.
155241 04-17
CHEMICAL AND ELECTRICAL TREATMENT OF AGGRESSION.
155243 04-04
THE USE OF HYDROXYZINE (VISTARIL) IN THE TREATMENT OF ANXIETY NEUROSIS.
155792 04-10
THE TREATMENT OF SEVERE ANXIETY IN OUTPATIENTS: A CONTROLLED STUDY COMPARING CHLORDIAZEPOXIDE AND CHLORPROMAZINE.
155794 04-10
TREATMENT OF ENURESIS.
156012 04-07
LITHIUM CARBONATE IN THE TREATMENT OF HYPERACTIVE CHILDREN.
156155 04-11
BENZONAL IN THE TREATMENT OF EPILEPTIC ATTACKS IN CHILDREN.
156566 04-11
MENTAL DISORDERS IN THE COURSE OF L-DOPA TREATMENT.
156568 04-15
TREATMENT OF ACUTE SCHIZOPHRENIA WITH MOLINDONE.
156643 04-08
MK-486 AND LEVODOPA IN TREATMENT OF PARKINSONISM.
156739 04-07
ALCOHOL HISTORY IN DRUG TREATMENT.
156740 04-11
CHLORPROMAZINE TREATMENT AND GROWTH HORMONE SECRETORY RESPONSES IN ACROMEGALY.
156770 04-11
THE USE OF LSD IN THE PSYCHOANALYTIC TREATMENT OF A CASE OF ANXIETY HYSTERIA.
156920 04-10
A DOUBLE-BLIND COMPARISON OF HALOPERIDOL ORAL CONCENTRATE, HALOPERIDOL SOLUTABS AND PLACEBO IN THE TREATMENT OF CHRONIC SCHIZOPHRENIA.
156939 04-08
TREATMENT OF CHRONIC NEUROSIS BY THE USE OF PIMOZIDE.
157029 04-11
RAPIDITY OF RESPONSE TO THE TREATMENT OF ENURESIS.
158012 04-13
HUMAN CHORIONIC GONADOTROPHIN (PREGNYL) IN THE TREATMENT OF NOCTURNAL ENURESIS.
158013 04-13
DRUG RESPONSES IN DIFFERENT ANXIETY STATES UNDER BENZODIAZEPINE TREATMENT. SOME MULTIVARIATE ANALYSES FOR THE EVALUATION OF RATING SCALE FOR DEPRESSION SCORES.
158285 04-14
BENZODIAZEPINES IN THE TREATMENT OF ALCOHOL WITHDRAWAL STATES.
158298 04-11
THE USE OF PROPRANOLOL IN THE TREATMENT OF HYPERTENSION.
158356 04-17
PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09
GROWTH OF SUCKLING RATS AFTER TREATMENT WITH DEXAMETHASONE OR CORTISOL: IMPLICATIONS FOR STEROID THERAPY IN HUMAN INFANTS.
159355 04-03
PHARMACOLOGIC TREATMENT OF AGGRESSION.
159398 04-11
BENPERIDOL IN THE TREATMENT OF SEXUAL OFFENDERS.
159408 04-11
BETA BLOCKADE IN THE TREATMENT OF TRICYCLIC ANTIDEPRESSANT OVERDOSAGE.
159585 04-05
PSYCHOSIS IN FABRY DISEASE AND TREATMENT WITH PHENOXYBENZAMINE.
159775 04-07
THE MONOAMINE OXIDASE INHIBITOR, PHENELZINE, IN THE TREATMENT OF DEPRESSIVE ANXIETY STATES.
159776 04-09
OBSERVATIONS OF L-DOPA TREATMENT AND OF ITS SIDE-EFFECTS IN THE AGED.
160138 04-15
ENTRY AND EXIT FROM TREATMENT: SOME CONSEQUENCES OF PRETREATMENT EXPERIENCE FOR TREATMENT RESPONSE.
160218 04-17
DRUG TREATMENT OF HYPERACTIVITY IN CHILDREN.
160694 04-14
EJACULATIO-PRAECOX: TREATMENT WITH THE MINI-PILL.
160975 04-14
TRYPTOPHAN AND AMITRIPTYLINE IN THE TREATMENT OF DEPRESSION: A DOUBLE-BLIND STUDY.
161386 04-09
TREATMENT OF PARKINSONISM BY THE USE OF L-DOPA AND THALAMIC OPERATIONS.
161558 04-13
TREATMENT OF PSYCHOSIS SUBSEQUENT TO PHENOTHIAZINE INDUCED AGRANULOCYTOSIS.
161582 04-14
PARKINSONS DISEASE: MODERN TREATMENT.
161673 04-13
DRUG TREATMENT OF ANXIETY AND DEPRESSION IN DETOXIFIED ALCOHOLIC PATIENTS.
162170 04-11
DRUG-INDUCED DYSTONIA-TARDA: TREATMENT WITH L-DOPA.
162361 04-15
WATER INTOXICATION DURING CARBAMAZEPINE TREATMENT.
162719 04-13
THE TONIC VIBRATION REFLEX SEEN IN THE ACUTE SPINAL CAT AFTER TREATMENT WITH DOPA.
162892 04-03

ESTROGEN IN TREATMENT OF THE MALE CLIMACTERIC.
163216 04-11
DOUBLE-BLIND COMPARISON OF HALOPERIDOL AND THIORIDAZINE IN TREATMENT RESISTANT PSYCHONEUROTIC OUTPATIENTS.
163337 04-10
EFFECT OF LONG-TERM FENFLURAMINE TREATMENT ON DRUG METABOLISM IN RAT.
163632 04-05
THE TREATMENT OF MUSCLE CONTRACTION HEADACHES WITH DIAZEPAM.
163681 04-11
DIAZEPAM IN THE TREATMENT OF INSOMNIA IN PSYCHIATRIC PATIENTS.
163682 04-11
AN UNCONTROLLED CLINICAL TRIAL WITH CLOMIPRAMINE IN THE TREATMENT OF DEPRESSED PATIENTS.
163683 04-09
THE EFFECTS OF CHRONIC CANNABIS TREATMENT ON THE AGGRESSIVE BEHAVIOR AND BRAIN 5-HYDROXYTRYPTAMINE LEVELS OF RATS WITH DIFFERENT TEMPERAMENTS.
163778 04-04
HALOPERIDOL IN THE TREATMENT OF NAUSEA AND VOMITING DUE TO CYTOTOXIC DRUG ADMINISTRATION.
164218 04-15
PREMORBID ASOCIAL ADJUSTMENT AND RESPONSE TO PHENOTHIAZINE TREATMENT AMONG SCHIZOPHRENIC INPATIENTS.
164714 04-08
CHLORPROMAZINE TREATMENT OF DISTURBED MONKEYS.
164715 04-04
TIOTIXENE AND THIORIDAZINE IN ALCOHOLISM TREATMENT.
165371 04-11
GEROVITAL-H3 IN TREATMENT OF DEPRESSION. PRELIMINARY RESULTS.
166390 04-09
MODERN TRENDS IN THE DIAGNOSIS AND TREATMENT OF DEPRESSION: CHANGES IN TREATMENT METHODS AND THEIR RESULTS.
166934 04-09
NEUROLEPTIC TREATMENT OF SCHIZOPHRENIA.
166975 04-08
CRITICAL REFLECTIONS CONCERNING PSYCHOPHARMACOLOGICAL TREATMENT OF SCHIZOPHRENICS.
166977 04-08
TREATMENT OF EXTRAPYRAMIDAL SIDE-EFFECTS IN NEUROLEPTIC THERAPY.
166978 04-15
A DOUBLE-BLIND STUDY OF DIAZEPAM AND DOXEPIN USED IN ANXIETY TREATMENT.
166985 04-10
FENFLURAMINE (PONDERAL) IN TREATMENT OF ADIPOSITY CAUSED BY NEUROLEPTICS.
166986 04-09
DAMAGE TO THE CENTRAL NERVOUS SYSTEM IN THE COURSE OF NEUROLEPTIC TREATMENT.
167087 04-15

TREATMENTS
COMPARISON OF THE BEHAVIORAL DEPRESSANT EFFECTS OF BIOGENIC AMINE DEPLETING AND NEUROLEPTIC AGENTS FOLLOWING VARIOUS 6-HYDROXYDOPAMINE TREATMENTS.
157140 04-04

TREMENS
CARBAMAZEPINE (TEGRETOL) IN THE TREATMENT OF DELIRIUM TREMENS.
151395 04-11

TREMOR
TREMOR AND INVOLUNTARY MOVEMENTS IN MONKEYS: EFFECT OF L-DOPA AND OF A DOPAMINE RECEPTOR STIMULATING AGENT.
149651 04-03
THE EFFECT OF M-TYROSINE ON TREMOR AND ON ABNORMAL MOVEMENTS IN MONKEYS WITH VENTROMEDIAL TEGMENTAL LESIONS.
158274 04-03
THE INFLUENCE OF SYNTHETIC SUBSTANCE P ON TREMOR CAUSED BY LSD IN MICE.
161143 04-03

TREMORGENIC
ANALYSIS OF TREMORGENIC EFFECTS OF INTRACAUDATE SEROTONIN (37476).
162047 04-03

TRENDS
RECENT TRENDS IN PSYCHOPHARMACOTHERAPY IN THE UNITED-STATES.
166549 04-17
MODERN TRENDS IN THE DIAGNOSIS AND TREATMENT OF DEPRESSION: CHANGES IN TREATMENT METHODS AND THEIR RESULTS.
166934 04-09

TRH
TRH: ENHANCEMENT OF DOPA ACTIVITY IN NORMAL INTACT, HYPOPHYSECTOMIZED AND THYROIDECTOMIZED ANIMALS.
155252 04-03
TRH AND THYROID HORMONES: DOPA RESPONSE AND DOPA METABOLISM.
155253 04-03
PITUITARY AND ANTIDEPRESSANT RESPONSES OF WOMEN TO TRH.
155254 04-13
T3 AND TSH RESPONSE TO TRH: NEWER ASPECTS OF LITHIUM INDUCED THYROID DISTURBANCE IN MAN.
155255 04-13
L-DOPA SUPPRESSION OF TRH STIMULATED PROLACTIN RELEASE IN MAN.
156772 04-13

TRIAZOLOBENZODIAZEPINE
ANXIOLYTIC EFFECTS OF A NEW TRIAZOLOBENZODIAZEPINE. U-31889.
164219 04-10

TRIAZOLOBENZODIAZEPINES
TRIAZOLOBENZODIAZEPINES, A NEW CLASS OF CENTRAL NERVOUS SYSTEM DEPRESSANT COMPOUNDS.
158279 04-03

TRICYCUC
EFFECT OF TRICYCLIC ANTIDEPRESSANTS ON THE SOMATOSENSORY EVOKED POTENTIAL IN MAN.
150349 04-13
STUDY ON THE EFFECT OF A RESERPINE-LIKE SUBSTANCE (TETRABENAZINE) FOLLOWED BY THE ADMINISTRATION OF A TRICYCLIC ANTIDEPRESSANT (DESMETHYLIMIPRAMINE) ON NORMAL SUBJECTS.
151304 04-07
TRICYCLIC ANTIDEPRESSANTS AND LIMB REDUCTION DEFORMITIES: A FURTHER COMMUNICATION FROM THE AUSTRALIAN DRUG EVALUATION COMMITTEE.
151932 04-15
COMBINED THYROID (TRIIODOTHYRONINE) TRICYCLIC ANTIDEPRESSANT TREATMENT IN DEPRESSIVE STATES.
154980 04-09
BINDING OF CYPROHEPTADINE-N-METHYL-14C BY HUMAN BLOOD PLATELETS: INHIBITION BY PHENOTHIAZINES AND TRICYCLIC ANTIDEPRESSANTS.
156647 04-13
TRICYCLIC ANTIDEPRESSANTS: ACTION ON SYNAPTOSOMAL ACETYLCHOLINESTERASE AND ATPASE IN THE BRAIN OF GUINEA-PIGS AND SUBCELLULAR DISTRIBUTION.
156813 04-03
STUDIES ON THE MECHANISM OF CARDIAC TOXICITY OF TRICYCLIC ANTIDEPRESSANTS.
158474 04-05
BETA BLOCKADE IN THE TREATMENT OF TRICYCLIC ANTIDEPRESSANT OVERDOSAGE.
159585 04-05
CLINICAL TOXICOLOGY VII. POISONING BY SALICYLATES, PARACETAMOL, TRICYCLIC ANTIDEPRESSANTS AND A MISCELLANY OF DRUGS.
159588 04-15
AN EVALUATION OF CONTINUATION THERAPY WITH TRICYCLIC ANTIDEPRESSANTS IN DEPRESSIVE ILLNESS.
162636 04-09

TRIFLUOPERAZINE
INFLUENCE OF TIZERTSINE AND TRIFLUOPERAZINE ON MOBILITY OF MAIN NERVOUS PROCESSES IN PATIENTS WITH PRESENILE PSYCHOSIS.
156588 04-11
DIFFERENTIAL EFFECTS ON MOUSE BRAIN CATECHOLAMINE TURNOVER OF CHLORPROMAZINE, TRIFLUOPERAZINE AND CLOSELY-RELATED NOT-TRANQUILLIZING ANALOGUES.
161145 04-13

TRIFLUPERIDOL
COMPARATIVE TRIAL OF IMICLOPAZINE, TPN-12 PIMOZIDE AND TRIFLUPERIDOL IN SCHIZOPHRENIA.
156563 04-08

TRIGEMINAL
AN ANALYTICAL SURVEY OF THE MANAGEMENT OF TRIGEMINAL NEURALGIA.
156250 04-11

TRIIODOTHYRONINE
RESPONSE TO TRIIODOTHYRONINE AND DEXTROAMPHETAMINE: A STUDY OF PRESCHOOL SCHIZOPHRENIC CHILDREN.
150432 04-08
COMBINED THYROID (TRIIODOTHYRONINE) TRICYCLIC ANTIDEPRESSANT TREATMENT IN DEPRESSIVE STATES.
154980 04-09

TRIMETHADIONE
BIOCHEMICAL EFFECTS OF THE ANTICONVULSANTS TRIMETHADIONE, ETHOSUXIMIDE, AND CHLORDIAZEPOXIDE IN RAT BRAIN.
152087 04-03

TRIMETHOXYBENZOATE
PARAMAGNETIC ION INDUCED SHIFTS IN THE NMR SPECTRA OF RESERPINE AND METHYL 3,4,5 TRIMETHOXYBENZOATE.
156867 04-06

TRIMETHOXYPHENYLETHYLAMINE
A COMPARISON OF THE STIMULUS PROPERTIES OF MESCALINE AND 2,3,4 TRIMETHOXYPHENYLETHYLAMINE.
156645 04-04

TRIPHOSPHATASE
COMPARATIVE EFFECTS OF SUBSTITUTED PHENOTHIAZINES AND THEIR FREE RADICALS ON (NA+,K+)- ACTIVATED ADENOSINE TRIPHOSPHATASE.
156640 04-03

TRIVASTAL
THE EFFECT OF TRIVASTAL, HALOPERIDOL AND DIBUTYRYL CYCLIC AMP ON (14C)DOPAMINE SYNTHESIS IN RAT STRIATUM.
156766 04-03

TROPOLONE
THE IN VIVO EFFECT OF TROPOLONE ON DOPAMINE METABOLISM AND THE CATECHOL-O-METHYLTRANSFERASE ACTIVITY IN THE STRIATUM OF THE RAT.
163321 04-03

TRYPTAMINE
THE POSSIBLE ROLE OF TRYPTAMINE IN BRAIN FUNCTION AND ITS RELATIONSHIP TO THE ACTIONS OF LSD-LIKE HALLUCINOGENS. (UNPUBLISHED PAPER).
151656 04-03

EFFECT OF DRUGS ON THE TRYPTAMINE CONTENT OF RAT TISSUES.
157109 04-03

AN ASSAY PROCEDURE FOR TRYPTAMINE IN BRAIN AND SPINAL CORD USING ITS 3H DANSYL DERIVATIVE.
161380 04-06

TRYPTOPHAN
SIMULTANEOUS MEASUREMENT OF TYROSINE AND TRYPTOPHAN HYDROXYLASE ACTIVITIES IN BRAIN IN VIVO USING AN INHIBITOR OF THE AROMATIC AMINO ACID DECARBOXYLASE.
150402 04-03

NEW THERAPEUTIC POSSIBILITIES IN DEPRESSIONS: TRYPTOPHAN AND INHIBITORS OF MONOAMINE OXIDASE.
151394 04-10

ANTIDEPRESSANTS AND LIVER TRYPTOPHAN PYRROLASE ACTIVITY.
155222 04-03

ON THE REGULATION OF TRYPTOPHAN HYDROXYLASE IN BRAIN. (UNPUBLISHED PAPER).
158182 04-03

INCREASE OF BRAIN LEVELS OF TRYPTOPHAN INDUCED BY INHIBITION OF DOPAMINE BETA-HYDROXYLASE (EC 1.14.2.1).
160230 04-01

TRYPTOPHAN AND AMITRIPTYLINE IN THE TREATMENT OF DEPRESSION: A DOUBLE-BLIND STUDY.
161386 04-09

METABOLISM OF TRYPTOPHAN IN DEPRESSIVE DISEASE.
164720 04-09

TSH
T3 AND TSH RESPONSE TO TRH: NEWER ASPECTS OF LITHIUM INDUCED THYROID DISTURBANCE IN MAN.
155255 04-13

TUBULAR
INHIBITION OF RENAL TUBULAR TRANSPORT OF MORPHINE BY DIETHYLAMINOETHANOL IN THE CHICKEN.
152162 04-03

TURNERS
A CASE OF TURNERS SYNDROME WITH PSYCHIC DISTURBANCES.
156552 04-11

TWO-WAY
DECREASED SENSITIVITY OF SEPTAL MICE TO IMPAIRMENT OF TWO-WAY AVOIDANCE BY CHLORPROMAZINE.
150350 04-04

TYBAMATE
EFFECTS OF TYBAMATE AND PENTYLENETETRAZOL ON SPINAL INTERNEURONS.
162958 04-03

TYRAMINE
EFFECT OF CHEMICAL SYMPATHECTOMY ON PRESSOR RESPONSES TO NOREPINEPHRINE, ANGIOTENSIN AND TYRAMINE.
163021 04-03

TYROSINE
SIMULTANEOUS MEASUREMENT OF TYROSINE AND TRYPTOPHAN HYDROXYLASE ACTIVITIES IN BRAIN IN VIVO USING AN INHIBITOR OF THE AROMATIC AMINO ACID DECARBOXYLASE.
150402 04-03

EFFECTS OF MORPHINE ON CATECHOLAMINE TURNOVER, CYCLIC 3,5 AMP CONCENTRATIONS AND TYROSINE HYDROXYLASE ACTIVITY IN RAT TISSUES. (UNPUBLISHED PAPER).
152549 04-03

ADRENAL AND STRIATAL TYROSINE HYDROXYLASE ACTIVITY AFTER METHAMPHETAMINE.
156644 04-03

FURTHER STUDIES ON THE INCREASED SYNTHESIS OF NOREPINEPHRINE DURING NERVE STIMULATION OF GUINEA-PIG VAS-DEFERENS PREPARATION: EFFECT OF TYROSINE AND 6,7 DIMETHYLTETRAHYDROPTERIN.
159368 04-03

AMPHETAMINE-INDUCED INHIBITION OF TYROSINE HYDROXYLATION IN HOMOGENATES OF RAT CORPUS-STRIATUM.
166000 04-03

T3
T3 ALONE IN DEPRESSED ADULTS.
155257 04-09

U-31889
ANXIOLYTIC EFFECTS OF A NEW TRIAZOLOBENZODIAZEPINE. U-31889.
164219 04-10

UNCONDITIONED
NATURE OF THE EFFECT OF NEUROLEPTICS AND ANTIDEPRESSANTS ON CONDITIONED AND UNCONDITIONED REFLEXES.
160537 04-13

UNCONTROLLED
AN UNCONTROLLED CLINICAL TRIAL WITH CLOMIPRAMINE IN THE TREATMENT OF DEPRESSED PATIENTS.
163683 04-09

UNEXPECTED
PSYCHOTROPIC DRUG TREATMENT OF MIXED ANXIETY AND DEPRESSION IN NONPSYCHIATRIC OFFICE PATIENTS: EXPECTED AND UNEXPECTED FINDINGS -- COMPARING DOXEPIN, CHLORDIAZEPOXIDE AND PLACEBO.
158972 04-09

UNEXPECTED EFFECTS RELATED TO INTERACTIONS OF DRUGS IN PEDIATRIC USE.
160690 04-15

UNIPOLAR
CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE: STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER).
166960 04-09

UNITED-KINGDOM
NEW DRUG DEVELOPMENT IN THE UNITED-KINGDOM.
155270 04-17

UNITED-STATES
PROBLEMS AND EXPERIENCES WITH TRIALS OUTSIDE THE UNITED-STATES: THE TIME LAG IN NEW DRUG AVAILABILITY.
155274 04-17

PEDIATRIC PSYCHOPHARMACOLOGY OUTSIDE THE UNITED-STATES.
155276 04-17

RECENT TRENDS IN PSYCHOPHARMACOTHERAPY IN THE UNITED-STATES.
166549 04-17

UNITS
EARLY CLINICAL DRUG EVALUATION UNITS REPORTS.
166878 04-07

UNIVERSITY
DOSAGE CONTROL OF DRUGS WITH LETHAL POTENCY FOR UNIVERSITY LEVEL PATIENTS.
150579 04-15

UNTOWARD
UNTOWARD RESPONSES TO MEDICATION IN ADOLESCENTS.
149916 04-15

UPTAKE
INHIBITORY EFFECTS OF CHLORPROMAZINE AND DIETHYLAMINOETHYL DIPHENYLVALERATE (SKF-525-A) ON ALANINE INCORPORATION INTO PROTEIN AND ALPHA-AMINOISOBUTYRIC ACID UPTAKE IN RAT HEPATOMA CELLS IN CULTURE.
150583 04-03

IS THE UPTAKE OF NARCOTIC ANALGESICS BY CEREBRAL CORTICAL SLICES MEDIATED IN PART BY ACTIVE TRANSPORT?
151631 04-03

EFFECT OF DESMETHYLIMIPRAMINE ON ACETYLCHOLINE UPTAKE BY SLICES OF RAT BRAIN CORTEX.
155494 04-03

IN VITRO INHIBITORY EFFECTS OF NARCOTIC ANALGESICS AND OTHER PSYCHOTROPIC DRUGS ON THE ACTIVE UPTAKE OF NOREPINEPHRINE IN MOUSE BRAIN TISSUE.
157063 04-03

UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE.
158771 04-03

EFFECT OF CHLORPROMAZINE ON 3H-PHENAZINE METHOSULFATE UPTAKE INTO VARIOUS REGIONS OF RAT BRAIN AND INTO SUBCELLULAR FRACTIONS OF BRAIN AND LIVER (IN VITRO).
160202 04-03

EFFECT OF BENZODIAZEPINES ON UPTAKE AND EFFLUX OF SEROTONIN IN HUMAN BLOOD PLATELETS IN VITRO.
160473 04-13

UPTAKE OF (3H)- CATECHOLAMINES BY HOMOGENATES OF RAT CORPUS-STRIATUM AND CEREBRAL CORTEX: EFFECTS OF AMPHETAMINE ANALOGUES.
160637 04-03

EFFECTS OF LYSERGIC ACID DIETHYLAMIDE ON THE UPTAKE AND RETENTION OF BRAIN 5-HYDROXYTRYPTAMINE IN VIVO AND IN VITRO.
160646 04-03

UPTAKE AND ACCUMULATION OF 3H-6,7-DIHYDROXYTETRAHYDROISOQUINOLINE BY PERIPHERAL SYMPATHETIC NERVES IN VIVO.
163764 04-03

INFLUENCE OF QUIPAZINE, A POTENTIAL ANTIPARKINSONIAN AGENT ON THE UPTAKE OF 3H-DOPAMINE AND 3H-SEROTONIN INTO RAT STRIATAL TISSUE IN VITRO.
163793 04-03

EFFECT OF SULPIRIDE ON OXYGEN UPTAKE BY RATS BRAIN TISSUE IN VITRO.
165411 04-03

INTERACTION OF COCAINE AND IPRONIAZID ON THE H3-NOREPINEPHRINE UPTAKE MECHANISM ON ISOLATED STRIP VENTRICLE OF FROG HEART.
165412 04-03

UPTAKE AND METABOLISM OF L-3,4 DIHYDROXYPHENYLALANINE (DOPA) IN RAT TISSUES.
166022 04-05

EFFECT OF DIPHENYLHYDANTOIN ON THE UPTAKE AND CATABOLISM OF L-(3H)NOREPINEPHRINE IN VITRO IN RAT CEREBRAL CORTEX TISSUE.
166696 04-03

UREA

EFFECT OF PENTOBARBITAL ON AMINO ACID AND UREA FLUX IN THE ISOLATED DOG BRAIN.
151733 04-03

UREIDE

UREIDE RING SCISSION OF PHENOBARBITAL BY SODIUM BOROHYDRIDE.
150418 04-01

URIDINE

INHIBITION OF URIDINE INCORPORATION INTO RNA IN MAMMALIAN CELLS BY AGENTS AFFECTING THE PROPERTIES OF THE CELL MEMBRANE: CHLORPROMAZINE, DIPYRIDAMOLE AND PHENYLETHANOL.
166700 04-03

URINARY

URINARY EXCRETION OF MONOAMINES AND METABOLITES IN PATIENTS DEPENDENT ON AND WITHDRAWN FROM BARBITURATES.
150293 04-13

BILIARY AND URINARY ELIMINATION OF METHADONE AND ITS METABOLITES IN THE RAT.
152098 04-03

URINARY CYCLIC AMP IN PERIODIC CATATONIA.
160826 04-13

THE EFFECT OF N-ALKYL CHAIN LENGTH AND STEREOCHEMISTRY ON THE ABSORPTION, METABOLISM AND URINARY EXCRETION OF N-ALKYLAMPHETAMINES IN MAN.
163800 04-13

NOREPINEPHRINE (NE) TURNOVER IN THE CENTRAL NERVOUS SYSTEM (CNS) -- ESTIMATED IN THE RAT FROM URINARY 3-METHOXY-4-HYDROXYPHENYLGLYCOL (MHPG) EXCRETION. (UNPUBLISHED PAPER
165941 04-03

CENTRAL NOREPINEPHRINE METABOLISM AND THE PREDICTION OF ANTIDEPRESSANT RESPONSE TO IMIPRAMINE OR AMITRIPTYLINE: STUDIES WITH URINARY MHPG IN UNIPOLAR DEPRESSED PATIENTS. (UNPUBLISHED PAPER).
166960 04-09

URINE

PIPERACETAZINE IN CHRONIC MENTAL PATIENTS: CLINICAL OBSERVATIONS AND NEW URINE COLOR TEST.
150831 04-07

RAPID DETECTION OF BARBITURATES IN URINE.
156848 04-06

USERS

CROSS-CULTURAL OPPORTUNITIES AND PROBLEMS IN STUDIES OF CHRONIC HASHISH USERS IN GREECE.
155264 04-15

SHORT-TERM EFFECTS OF MARIJUANA SMOKING ON COGNITIVE BEHAVIOR IN EXPERIENCED MALE USERS.
163755 04-14

UTILIZATION

DISSOCIATION OF TWO COMPONENTS OF RAT BEHAVIOR BY PSYCHOTROPIC DRUGS: UTILIZATION FOR STUDYING ANXIOLYTIC DRUGS.
163760 04-04

EFFECT OF AN AMPHETAMINE DERIVATIVE IN RAT ADIPOSE TISSUE LIPOLYSIS AND GLYCEROL UTILIZATION IN VITRO.
166693 04-03

UTILIZING

ESTIMATION OF BRAIN AMINE METABOLISM IN AFFECTIVE ILLNESS: CEREBROSPINAL FLUID STUDIES UTILIZING PROBENECID.
164871 04-11

VALIUM

LIBRIUM ATQUE VALIUM.
164621 04-17

VALUES

SIGNIFICANCE OF INFORMATION ON PATIENTS AND PERSONNEL EVALUATED AFTER 5000 SERUM LITHIUM VALUES.
166983 04-17

VARIABLE

RITALIN AS THE INDEPENDENT VARIABLE IN A REVERSAL DESIGN. (PH.D. DISSERTATION).
163512 04-16

VARIABLES

SIGNIFICANCE AND COMPLICATIONS OF THE CULUTURAL VARIABLES IN PSYCHOPHARMACOLOGICAL RESEARCH.
155267 04-17

RELATIONSHIP OF CLINICAL AND DEMOGRAPHIC VARIABLES TO COMMUNITY ADJUSTMENT OF SCHIZOPHRENIC OUTPATIENTS ON CHEMOTHERAPY. (ED. D. DISSERTATION).
158779 04-08

VARIATION

CIRCADIAN VARIATION OF THE LETHALITY OF METHADONE.
150386 04-03

VARIATIONS

DIURNAL VARIATIONS OF LITHIUM CLEARANCE IN THE RAT.
160220 04-03

VARIETY

POISONING BY THE BARBITURATES, AND A VARIETY OF HYPNOTICS AND SEDATIVES.
155753 04-15

VAS-DEFERENS

A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

ANTAGONISM BY PROTRIPTYLINE AND DESIPRAMINE OF THE RESPONSE OF THE VAS-DEFERENS OF THE RAT TO NOREPINEPHRINE, ACETYLCHOLINE AND POTASSIUM.
157110 04-03

POTENTIATING MECHANISM BY OUABAIN ON CONTRACTIONS OF GUINEA-PIG VAS-DEFERENS TO 5-HT AND OTHER AMINES.
158475 04-03

FURTHER STUDIES ON THE INCREASED SYNTHESIS OF NOREPINEPHRINE DURING NERVE STIMULATION OF GUINEA-PIG VAS-DEFERENS PREPARATION: EFFECT OF TYROSINE AND 6,7 DIMETHYLTETRAHYDROPTERIN.
159368 04-03

VASCULAR

THE EFFECT OF DEXTROAMPHETAMINE ON HABITUATION OF PERIPHERAL VASCULAR RESPONSE IN CHILDREN.
154739 04-14

THE EFFECTS OF CHANGES IN IONIC ENVIRONMENT AND MODIFICATION OF ADRENERGIC FUNCTION ON THE VASCULAR RESPONSES TO SYMPATHOMIMETIC AMINES.
158769 04-03

NORADRENALINE EXCITATIONS: NEURONAL, NOT VASCULAR.
162440 04-03

VASOCONSTRICTION

VASOCONSTRICTION BY NORADRENALINE IN THE BRAIN.
162437 04-03

VASOPRESSIN

MECHANISM OF THE SYNERGISTIC LETHALITY BETWEEN PENTAZOCINE AND VASOPRESSIN IN THE RAT.
157066 04-05

FACILITATION OF DEVELOPMENT OF TOLERANCE TO MORPHINE BY DESGLYCINAMIDE9-LYSINE VASOPRESSIN (DGVP). (UNPUBLISHED PAPER).
162738 04-03

VEHICLE

VEHICLE AND ROUTE OF ADMINISTRATION AS PARAMETERS AFFECTING OPERANT BEHAVIORAL EFFECTS OF DELTA9-TETRAHYDROCANNABINOL.
150414 04-04

VEHICLES

OPIATE DEPENDENCE PRODUCED BY AD LIBITUM DRINKING OF MORPHINE IN WATER, SALINE, AND SUCROSE VEHICLES.
157147 04-04

VENOUS

SEROTONIN METABOLISM IN RAT BRAIN AFTER SURGICAL DIVERSION OF THE PORTAL VENOUS CIRCULATION.
159449 04-03

VENTRAL

THE EFFECT OF FOCALLY ADMINISTERED DRUGS ON SELF-STIMULATION OF THE VENTRAL TEGMENTAL AREA IN RATS. (PH.D. DISSERTATION).
160896 04-04

VENTRICLE

THE EFFECTS OF ANALGESICS AND NEUROLEPTICS ON THE RELEASE OF MONOAMINE METABOLITES INTO THE LATERAL CEREBRAL VENTRICLE OF RABBIT.
158482 04-03

INTERACTION OF COCAINE AND IPRONIAZID ON THE H3-NOREPINEPHRINE UPTAKE MECHANISM ON ISOLATED STRIP VENTRICLE OF FROG HEART.
165412 04-03

VENTROMEDIAL

THE EFFECT OF M-TYROSINE ON TREMOR AND ON ABNORMAL MOVEMENTS IN MONKEYS WITH VENTROMEDIAL TEGMENTAL LESIONS.
158274 04-03

EFFECTS OF VENTROMEDIAL HYPOTHALAMIC LESIONS ON CONDITIONED SUCROSE AVERSIONS IN RATS.
162673 04-02

VERBAL
MARIJUANA INDUCED STATE-DEPENDENT VERBAL LEARNING.
157153 04-14

VERTIGO
THE EFFECT OF SULPIRIDE ON THE VERTIGO OF MENIERES SYNDROME AND ON PSYCHOSOMATIC VESTIBULAR DISORDER.
165755 04-12

VESICLES
EFFECTS OF RESERPINE ON THE CONTENT AND PROPERTIES OF RAT ADRENAL MEDULLARY STORAGE VESICLES.
150580 04-03

VESTIBULAR
ACUTE VESTIBULAR EFFECTS OF MARIJUANA.
156642 04-13
THE EFFECT OF SULPIRIDE ON THE VERTIGO OF MENIERES SYNDROME AND ON PSYCHOSOMATIC VESTIBULAR DISORDER.
165755 04-12

VIBRATION
THE TONIC VIBRATION REFLEX SEEN IN THE ACUTE SPINAL CAT AFTER TREATMENT WITH DOPA.
162892 04-03

VIOLENCE
TREATABLE VIOLENCE.
150689 04-09

VIROLA-PERUVIANA
PHYTOCHEMICAL INVESTIGATION OF VIROLA-PERUVIANA, A NEW HALLUCINOGENIC PLANT.
163189 04-12

VIRUS
THE EFFECT OF GEROVITAL-H3 ON THE GROWTH RATE OF AGED MOUSE EMBRYO FIBROBLASTS AND ON THE PATHOGENESIS INDUCED BY A RNA C-TYPE VIRUS.
166387 04-03

VISTARIL
THE USE OF HYDROXYZINE (VISTARIL) IN THE TREATMENT OF ANXIETY NEUROSIS.
155792 04-10

VOLATILE
ELECTROGRAPHIC STUDIES OF A NEW VOLATILE ANESTHETIC AGENT: ENFLURANE (ETHRANE).
152037 04-03

VOLTAGE
VOLTAGE LATERALITY IN THE EEG OF PSYCHIATRIC PATIENTS.
162365 04-08

VOLUNTEERS
SYMPTOMATIC VOLUNTEERS: ANOTHER PATIENT DIMENSION FOR CLINICAL TRIALS.
156938 04-16
A CONTROLLED EVALUATION OF PYROVALERONE IN CHRONICALLY FATIGUED VOLUNTEERS.
160217 04-14
PREDICTION OF THERAPEUTIC USES OF PSYCHOTHERAPEUTIC DRUGS FROM EXPERIENCES WITH NORMAL VOLUNTEERS.
167106 04-14

VOMITING
HALOPERIDOL IN THE TREATMENT OF NAUSEA AND VOMITING DUE TO CYTOTOXIC DRUG ADMINISTRATION.
164218 04-15

WAKEFULNESS
EFFECTS OF TRAZODONE ON SLEEP WAKEFULNESS CYCLE IN RATS.
158508 04-04
DELTA9-TETRAHYDROCANNABINOL AND THE SLEEP WAKEFULNESS CYCLE IN RABBITS.
161119 04-04
EFFECTS OF P-CHLOROPHENYLALANINE AND 5-HYDROXYTRYPTOPHAN ON SLEEP - WAKEFULNESS AND THE CENTRAL METABOLISM OF MONOAMINES AND PROTEINS IN THE CAT.
166692 04-04

WARFARIN
INTERACTION OF BENZODIAZEPINES WITH WARFARIN IN MAN.
158302 04-13

WATER
THE EFFECTS OF 6-HYDROXYDOPAMINE, DOPAMINE AND DL-NOREPINEPHRINE ON FOOD INTAKE AND WATER CONSUMPTION, SELF-STIMULATION, TEMPERATURE AND ELECTROENCEPHALOGRAPHIC ACTIVITY IN THE RAT.
150352 04-04
OPIATE DEPENDENCE PRODUCED BY AD LIBITUM DRINKING OF MORPHINE IN WATER, SALINE, AND SUCROSE VEHICLES.
157147 04-04
ACUTE EFFECTS OF TWO TETRAHYDROCANNABINOLS (DELTA9-THC AND DELTA8-THC) ON WATER INTAKE IN WATER DEPRIVED RATS: IMPLICATIONS FOR BEHAVIORAL STUDIES ON MARIHUANA COMPOUNDS.
157149 04-04
THE EFFECTS OF HYPOTHALAMIC IMPLANTS OF ALDOSTERONE, ANGIOTENSIN II, CARBACOL, NOREPINEPHRINE, AND NACL ON WATER AND NACL INTAKE IN NORMAL AND ADRENALECTOMIZED RATS.
159391 04-04
NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS.
160854 04-04
WATER INTOXICATION DURING CARBAMAZEPINE TREATMENT.
162719 04-13
BEHAVIORAL EFFECTS OF DIAZEPAM, PENTOBARBITAL, METHAMPHETAMINE AND THEIR COMBINATIONS ON DRL 20SEC FOR WATER.
165647 04-04

WAVES
THE FACILITATORY EFFECT OF ELECTRICAL STIMULATION OF THE BRAIN STEM RETICULAR FORMATION ON THE RESERPINE INDUCED SPIKE WAVES RECORDED FROM THE MEDIAL NUCLEUS TRAPEZOIDES IN THE RABBIT.
158507 04-03

WEIGHING
WEIGHING EVIDENCE THAT LINKS EPILEPSY DRUGS TO FETAL DEFECTS.
161357 04-15

WEIGHT
THE EFFECTS OF CHRONIC FENFLURAMINE ADMINISTRATION ON BEHAVIOUR AND BODY WEIGHT.
163759 04-04

WESTERN
PHARMACOLOGICAL EVALUATION OF MEDICINAL PLANTS FROM WESTERN SAMOA.
157300 04-17

WHEEL
DIFFERENTIAL EFFECTS OF DELTA9-THC ON LOCOMOTOR BEHAVIOR IN ACTIVITY WHEEL HABITUATED AND NONHABITUATED RATS.
157182 04-04

WHEEL-RUNNING
EFFECTS OF FOOD DEPRIVATION AND INITIAL LEVELS ON A WHEEL-RUNNING RESPONSE TO METHAMPHETAMINE.
152354 04-03

WISTAR
COMPARISON BETWEEN O-AMINOPHENOL GLUCURONIDATION IN LIVER SLICES AND HOMOGENATES FROM CONTROL AND PHENOBARBITAL TREATED WISTAR AND GUNN RATS.
151351 04-03
THE EFFECTS OF PIMOZIDE ON DOMINANT SUBORDINATE BEHAVIOUR IN WISTAR RATS COMPETING FOR FOOD.
163758 04-04

WITHDRAWAL
CONTROL OF MORPHINE WITHDRAWAL HYPOTHERMIA BY CONDITIONAL STIMULI.
153098 04-03
BENZODIAZEPINES IN THE TREATMENT OF ALCOHOL WITHDRAWAL STATES.
158298 04-11

WITHDRAWN
URINARY EXCRETION OF MONOAMINES AND METABOLITES IN PATIENTS DEPENDENT ON AND WITHDRAWN FROM BARBITURATES.
150293 04-13

WOMEN
LITHIUM AND PREGNANCY - II, HAZARDS TO WOMEN GIVEN LITHIUM DURING PREGNANCY AND DELIVERY.
155042 04-15
LITHIUM AND PREGNANCY - III, LITHIUM INGESTION BY CHILDREN BREAST-FED BY WOMEN ON LITHIUM TREATMENT.
155043 04-15
PITUITARY AND ANTIDEPRESSANT RESPONSES OF WOMEN TO TRH.
155254 04-13
THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. I. SUBJECTIVE EXPERIENCES.
157343 04-14
THR (LOPREMONE): PSYCHOBIOLOGICAL RESPONSES OF NORMAL WOMEN. II. PITUITARY THYROID RESPONSES.
157344 04-13

WORD
SYNTHESIS OF SCOTOPHOBIN. A MEMORY CODE WORD.
156872 04-01

WORKERS
NO PRESCRIPTION PADS FOR SOCIAL WORKERS.
161630 04-17

WORKING
PHARMACOLOGICAL ASPECTS OF THE WORKING MECHANISM OF NEUROLEPTICS.
166976 04-13

WY-4036
TREATMENT OF AMBULATORY NEUROTIC PATIENTS WITH WY-4036, JAKARTA, INDONESIA.
152342 04-10

XANTHINOL
EFFECT OF XANTHINOL NICOTINATE ON METABOLISM OF BRAIN CYCLIC AMP AND METABOLISM IN ELECTRICALLY STIMULATED CEREBRAL TISSUE.
158511 04-03

YARDSTICK
ACUTE RESPONSES OF SCHIZOPHRENIC CHILDREN TO A SEDATIVE AND STIMULATING NEUROLEPTIC: A PHARMACOLOGIC YARDSTICK.
152208 04-08

YIELD
METABOLISM OF AMITRIPTYLINE, NORTRIPTYLINE, IMIPRAMINE AND DESIPRAMINE TO YIELD HYDROXYLAMINES.
156762 04-01

YOUNG
RECURRENT MANIA IN A YOUNG MAN.
151439 04-09

GROWTH RETARDATION IN YOUNG MICE TREATED WITH DL-METHADONE.
159654 04-03

11-HYDROXY-DELTA9-TETRAHYDROCANNABINOL
COMPARISON OF THE EFFECT OF DELTA9-TETRAHYDROCANNABINOL, 11-HYDROXY-DELTA9-TETRAHYDROCANNABINOL, AND ETHANOL ON THE ELECTROPHYSIOLOGICAL ACTIVITY OF THE GIANT AXON OF THE SQUID.
156816 04-03

14C-CATECHOLAMINES
EFFECT OF SCOPOLAMINE ON THE CEREBRAL ACCUMULATION OF 14C-CATECHOLAMINES FROM 14C-TYROSINE.
151907 04-03

14C-DIAZEPAM
KINETICS OF THE DISTRIBUTION OF 14C-DIAZEPAM AND ITS METABOLITES IN VARIOUS AREAS OF CAT BRAIN.
160478 04-03

14C-NOREPINEPHRINE
STERIC ASPECTS OF ADRENERGIC DRUGS XXII: RETENTION OF (_)- AND (-) 14C-NOREPINEPHRINE BY MOUSE HEART.
157302 04-01

14C-TYROSINE
EFFECT OF SCOPOLAMINE ON THE CEREBRAL ACCUMULATION OF 14C-CATECHOLAMINES FROM 14C-TYROSINE.
151907 04-03

1766-CERM
1766-CERM: A NEW ANTIDEPRESSANT WITH RAPID ACTION.
150644 04-09

2-AMINO-7-HYDROXYTETRALIN
MESCALINE-LIKE ACTIVITY OF 2-AMINO-7-HYDROXYTETRALIN.
152143 04-12

203HG-ETHYLMERCURY
EXPERIMENTAL STUDIES ON THE DISTRIBUTION AND EXCRETION OF 203HG-ETHYLMERCURY CHLORIDE.
158516 04-03

3-MERCAPTOPROPIONIC
THE EFFECT OF THE CONVULSANT 3-MERCAPTOPROPIONIC ACID ON ENZYMES OF THE GAMMA-AMINOBUTYRATE SYSTEM IN THE RAT CEREBRAL CORTEX.
161378 04-03

3-METHOXY-4-HYDROXYPHENYLETHANOL
FLUOROMETRIC DETERMINATION OF 3-METHOXYTYRAMINE AND 3-METHOXY-4-HYDROXYPHENYLETHANOL.
151632 04-01

3-METHOXY-4-HYDROXYPHENYLGLYCOL
NOREPINEPHRINE (NE) TURNOVER IN THE CENTRAL NERVOUS SYSTEM (CNS) -- ESTIMATED IN THE RAT FROM URINARY 3-METHOXY-4-HYDROXYPHENYLGLYCOL (MHPG) EXCRETION. (UNPUBLISHED PAPER
165941 04-03

3-METHOXYTYRAMINE
FLUOROMETRIC DETERMINATION OF 3-METHOXYTYRAMINE AND 3-METHOXY-4-HYDROXYPHENYLETHANOL.
151632 04-01

3H-DIHYDROXYPHENYLALANINE
THE METABOLISM OF 3H-TYROSINE AND 3H-DIHYDROXYPHENYLALANINE IN PARKINSONS DISEASE. (PH.D. DISSERTATION).
164443 04-13

3H-DOPAMINE
INFLUENCE OF QUIPAZINE, A POTENTIAL ANTIPARKINSONIAN AGENT ON THE UPTAKE OF 3H-DOPAMINE AND 3H-SEROTONIN INTO RAT STRIATAL TISSUE IN VITRO.
163793 04-03

3H-PHENAZINE
EFFECT OF CHLORPROMAZINE ON 3H-PHENAZINE METHOSULFATE UPTAKE INTO VARIOUS REGIONS OF RAT BRAIN AND INTO SUBCELLULAR FRACTIONS OF BRAIN AND LIVER (IN VITRO).
160202 04-03

3H-SEROTONIN
INFLUENCE OF QUIPAZINE, A POTENTIAL ANTIPARKINSONIAN AGENT ON THE UPTAKE OF 3H-DOPAMINE AND 3H-SEROTONIN INTO RAT STRIATAL TISSUE IN VITRO.
163793 04-03

3H-TYROSINE
THE METABOLISM OF 3H-TYROSINE AND 3H-DIHYDROXYPHENYLALANINE IN PARKINSONS DISEASE. (PH.D. DISSERTATION).
164443 04-13

34276-BA
CLINICAL EXPERIENCES WITH THE NEW ANTIDEPRESSANT MAPROTILIN 34276-BA.
164681 04-09

5-HT
POTENTIATING MECHANISM BY OUABAIN ON CONTRACTIONS OF GUINEA-PIG VAS-DEFERENS TO 5-HT AND OTHER AMINES.
158475 04-03

5-HYDROXYINDOLE
NEUROCHEMICAL TERATOLOGY: 5-HYDROXYINDOLE CONCENTRATIONS IN DISCRETE AREAS OF RAT BRAIN AFTER THE PRE- AND NEONATAL ADMINISTRATION OF PHENCYCLIDINE AND IMIPRAMINE.
156751 04-03

5-HYDROXYINDOLEACETIC
EFFECT OF CLONIDINE ON THE 5-HYDROXYTRYPTAMINE AND 5-HYDROXYINDOLEACETIC ACID BRAIN LEVELS.
166695 04-03

5-HYDROXYTRYPTAMINE
5-HYDROXYTRYPTAMINE SUPERSENSITIVITY AS A NEW THEORY OF HEADACHE AND CENTRAL PAIN: A CLINICAL PHARMACOLOGICAL APPROACH WITH P-CHLOROPHENYLALANINE.
150670 04-15

BIPHASIC ACTION OF 5-HYDROXYTRYPTAMINE INHIBITOR ON FENFLURAMINE INDUCED ANOREXIA.
156804 04-03

ON THE USE OF ETHANOL AS A SCAVENGER IN STORING LABELLED DOPA AND 5-HYDROXYTRYPTAMINE IN AQUEOUS SOLUTIONS.
156806 04-06

MORPHINE TOLERANCE AND SUPERSENSITIVITY TO 5-HYDROXYTRYPTAMINE IN THE MYENTERIC PLEXUS OF THE GUINEA-PIG.
157318 04-03

UPTAKE OF (3H)5-HYDROXYTRYPTAMINE AND (3H)NORADRENALINE BY SLICES OF RAT BRAIN INCUBATED IN PLASMA FROM PATIENTS TREATED WITH CHLORIMIPRAMINE, IMIPRAMINE, OR AMITRIPTYLINE.
158771 04-03

ROLE OF BRAIN 5-HYDROXYTRYPTAMINE IN AUDIOGENIC SEIZURE IN THE RAT
159565 04-03

EFFECTS OF LYSERGIC ACID DIETHYLAMIDE ON THE UPTAKE AND RETENTION OF BRAIN 5-HYDROXYTRYPTAMINE IN VIVO AND IN VITRO.
160646 04-03

EFFECT OF CHLORIMIPRAMINE ON THE METABOLISM OF 5-HYDROXYTRYPTAMINE IN THE RAT BRAIN.
160647 04-03

SPONTANEOUS RELEASE AND DURING METRAZOL CONVULSIONS OF 5-HYDROXYTRYPTAMINE IN SOME BRAIN REGIONS OF CONSCIOUS CAT.
162056 04-03

EFFECTS OF INTRACEREBRAL INJECTIONS OF 5,6 DIHYDROXYTRYPTAMINE ON CENTRAL MONOAMINE NEURONS: EVIDENT FOR SELECTIVE DEGENERATION OF CENTRAL 5-HYDROXYTRYPTAMINE NEURONS.
162894 04-03

THE EFFECTS OF CHRONIC CANNABIS TREATMENT ON THE AGGRESSIVE BEHAVIOR AND BRAIN 5-HYDROXYTRYPTAMINE LEVELS OF RATS WITH DIFFERENT TEMPERAMENTS.
163778 04-04

5-HYDROXYTRYPTAMINE METABOLISM, SUPERIOR-COLLICULUS, AND GROOMING BEHAVIOR IN CATS WITH PONTILE LESIONS.
166157 04-03

EFFECT OF CLONIDINE ON THE 5-HYDROXYTRYPTAMINE AND 5-HYDROXYINDOLEACETIC ACID BRAIN LEVELS.
166695 04-03

5-HYDROXYTRYPTOPHAN
THE INFLUENCE OF P-CHLOROPHENYLALANINE ON THE EFFECT OF 5-HYDROXYTRYPTOPHAN ON SPINAL SYNAPTIC ACTIVITY IN CHRONIC SPINAL AND RESERPINIZED CATS.
154959 04-03

A STUDY OF THE TRANYLCYPROMINE MEPERIDINE INTERACTION: EFFECTS OF P-CHLOROPHENYLALANINE AND 1 5-HYDROXYTRYPTOPHAN.
157065 04-03

EFFECTS OF P-CHLOROPHENYLALANINE AND 5-HYDROXYTRYPTOPHAN ON SLEEP - WAKEFULNESS AND THE CENTRAL METABOLISM OF MONOAMINES AND PROTEINS IN THE CAT.
166692 04-04

6-AMINODOPAMINE
6-AMINODOPAMINE AND 6-HYDROXYDOPAMINE: SIMILAR DEGENERATIVE EFFECTS ON PERIPHERAL ADRENERGIC NERVES. (UNPUBLISHED PAPER).
156107 04-03

6-DIHYDROXYTRYPTAMINE
INFLUENCE OF 5,6-DIHYDROXYTRYPTAMINE ON MORPHINE TOLERANCE AND PHYSICAL DEPENDENCE.
156822 04-03

6-HYDROXYDOPA
PHARMACOLOGICAL MODIFICATIONS OF THE 6-HYDROXYDOPA INDUCED DEGENERATION OF CENTRAL NORADRENALINE NEURONS.
151350 04-03
EFFECTS OF 6-HYDROXYDOPA. (UNPUBLISHED PAPER).
151654 04-03

6-HYDROXYDOPAMINE
THE EFFECTS OF 6-HYDROXYDOPAMINE, DOPAMINE AND DL-NOREPINEPHRINE ON FOOD INTAKE AND WATER CONSUMPTION, SELF-STIMULATION, TEMPERATURE AND ELECTROENCEPHALOGRAPHIC ACTIVITY IN THE RAT.
150352 04-04
THE EXCRETION OF NOREPINEPHRINE AND DOPAMINE ALCOHOLIC METABOLITES AFTER 6-HYDROXYDOPAMINE. (UNPUBLISHED PAPER).
151643 04-03
PHARMACOLOGICAL SYMPATHECTOMY USING 6-HYDROXYDOPAMINE.
154960 04-03
6-AMINODOPAMINE AND 6-HYDROXYDOPAMINE: SIMILAR DEGENERATIVE EFFECTS ON PERIPHERAL ADRENERGIC NERVES. (UNPUBLISHED PAPER).
156107 04-03
A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03
GROWTH AND BEHAVIORAL CHANGES IN DEVELOPING RATS TREATED INTRACISTERNALLY WITH 6-HYDROXYDOPAMINE: EVIDENCE FOR INVOLVEMENT OF BRAIN DOPAMINE.
157117 04-03
COMPARISON OF THE BEHAVIORAL DEPRESSANT EFFECTS OF BIOGENIC AMINE DEPLETING AND NEUROLEPTIC AGENTS FOLLOWING VARIOUS 6-HYDROXYDOPAMINE TREATMENTS.
157140 04-04
EFFECT OF 6-HYDROXYDOPAMINE, 5, 6 DIHYDROXYTRYPTAMINE AND RAPHE LESIONS ON THE ANTINOCICEPTIVE ACTIONS OF MORPHINE IN RATS.
157141 04-03
INFLUENCE OF 6-HYDROXYDOPAMINE ON THE EFFECT OF MORPHINE ON THE TAIL-FLICK LATENCY.
157146 04-04
EVIDENCE FOR DEGENERATION OF SYMPATHETIC NERVE TERMINALS CAUSED BY THE ORTHO-QUINONES AND PARA-QUINONES OF 6-HYDROXYDOPAMINE.
157178 04-03
EFFECTS OF RESERPINE, 6-HYDROXYDOPAMINE, P-CHLOROPHENYLALANINE AND A COMBINATION OF THESE SUBSTANCES ON THE GROOMING BEHAVIOUR OF MICE.
158001 04-04
CENTRAL NERVOUS ACTION OF 6-HYDROXYDOPAMINE.
158497 04-03
RESTORATION OF MORPHINE ANALGESIA IN MORPHINE TOLERANT RATS AFTER THE INTRAVENTRICULAR ADMINISTRATION OF 6-HYDROXYDOPAMINE.
158774 04-03
EFFECT OF 6-HYDROXYDOPAMINE ON DARK ADAPTATION IN THE RAT RETINA.
159569 04-03
NEONATAL 6-HYDROXYDOPAMINE SYMPATHECTOMY REDUCES FOOT SHOCK INDUCED SUPPRESSION OF WATER LICKING IN NORMOTENSIVE AND HYPERTENSIVE RATS.
160854 04-04
THE OXIDATION OF 6-HYDROXYDOPAMINE.
161140 04-01
BEHAVIOR OF FREE-RANGING MACAQUES AFTER INTRAVENTRICULAR 6-HYDROXYDOPAMINE.
163161 04-04

6-OHDA
A FINE STRUCTURAL AND ENZYME HISTOCHEMICAL STUDY OF MUSCLE INNERVATION IN THE NORMAL AND 6-HYDROXYDOPAMINE (6-OHDA) TREATED RAT VAS-DEFERENS INCLUDING A NUMERICAL ASSESSMENT OF AXONAL CHANGES WITHIN 48 HOURS OF A SINGLE INJECTION OF THE DRUG.
156814 04-03

7-DIHYDROXYTETRAHYDROISOQUINOLINE
UPTAKE AND ACCUMULATION OF 3H-6,7-DIHYDROXYTETRAHYDROISOQUINOLINE BY PERIPHERAL SYMPATHETIC NERVES IN VIVO.
163764 04-03

7-HYDROXY-DELTA1-TETRAHYDROCANNABINOL
PLASMA PROTEIN BINDING OF 7-HYDROXY-DELTA1-TETRAHYDROCANNABINOL: AN ACTIVE DELTA1-TETRAHYDROCANNABINOL METABOLITE.
156799 04-03

8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE
PHYSICOCHEMICAL STUDIES ON A NEW POTENT CNS DEPRESSANT, 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA).
155553 04-01
HYPNOTIC EFFECT OF 8-CHLORO-6-PHENYL-4H-S-TRIAZOLOBENZODIAZEPINE (D-40TA) IN EXPERIMENTALLY INDUCED INSOMNIA AND BRAIN SEROTONIN IN RATS.
158504 04-04

8-14C-MESCALINE
DRUG INTERACTION -- EFFECT OF CHLORPROMAZINE ON THE DISPOSITION OF 8-14C-MESCALINE IN FETAL AND MATERNAL BRAIN AND LIVER IN PREGNANT MOUSE.
155221 04-03

Computer Information Services of the National Clearinghouse for Mental Health Information

Searches of the NCMHI computer-based information system will be done on request. These reader-generated bibliographies are available without charge to anyone within the mental health community.

Requests for a printout on a topic not covered by the abstracts in this issue or other NCMHI publications should be sent directly to the Clearinghouse. The request should include the inquirer's name, address, professional affiliation, and phone number, along with a clear and specific statement of the information desired. Either a letter or the order blank below should be sent to the following address:

National Clearinghouse for Mental
Health Information
Alcohol, Drug Abuse, and
Mental Health Administration
5600 Fishers Lane
Rockville, Maryland 20852

Date _____

Name of requester _____

Address _____

Organization _____

Phone number (include area code) _____

Information requested (please be as specific as possible) _____

_____

_____

_____

_____

PSYCHOPHARMACOLOGY ABSTRACTS

Questions about Clearinghouse service should be addressed to:

Psychopharmacology Abstracts
National Clearinghouse for Mental Health Information
Alcohol, Drug Abuse, and Mental Health Administration
5600 Fishers Lane
Rockville, Maryland 20852

For information on subscriptions and the purchase of single copies of the *Abstracts* (Vol. 7 onward), please refer to page ii of this issue.

DHEW Publication No. (ADM) 75-150
Printed 1974

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION